	A	B	C	D	E	F	G
1	**Action Package**	**JEE Indicators**	**JEE Score**				
2	Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance (AMR) detection	1				
3	Biosafety/Biosecurity	P.3.2 Surveillance of infections caused by AMR pathogens	2				
4	Emergency Operations Centers	P.3.3 Healthcare associated infection (HCAI) prevention and control programs	3				
5	Immunization	P.3.4 Antimicrobial stewardship activities	4				
6	Medical Countermeasures	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	5				
7	National Lab System	P.4.2 Veterinary or Animal Health Workforce					
8	Public Health and Law Rapid Response	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional					
9	Reporting / Information Systems	P.6.1 Whole-of-Government biosafety and biosecurity system is in place for human, animal, and agriculture facilities					
10	Surveillance	P.6.2 Biosafety and biosecurity training and practices					
11	Workforce Development	P.7.1 Vaccine coverage (measles) as part of national program					
12	Zoonotic Disease	P.7.2 National vaccine access and delivery					
13	Other	D.1.1 Laboratory testing for detection of priority diseases					
14		D.1.2 Specimen referral and transport system					
15		D.1.3 Effective modern point of care and laboratory based diagnostics					
16		D.1.4 Laboratory Quality System					
17		D.2.1 Indicator and event based surveillance systems					
18		D.2.2 Inter-operable, interconnected, electronic real-time reporting system					
19		D.2.3 Analysis of surveillance data					
20		D.2.4 Syndromic surveillance systems					
21		D.3.1 System for efficient reporting to WHO, FAO and OIE					
22		D.3.2 Reporting network and protocols in country					
23		D.4.1 Human resources are available to implement IHR core capacity requirements					
24		D.4.2 Field Epidemiology Training Program or other applied epidemiology training program in place					
25		D.4.3 Workforce strategy					
26		R.2.1 Capacity to Activate Emergency Operations					
27		R.2.2 Emergency Operations Center Operating Procedures and Plans					
28		R.2.3 Emergency Operations Program					
29		R.2.4 Case management procedures are implemented for IHR relevant hazards.					
30		R.3.1 Public Health and Security Authorities, (e.g. Law Enforcement, Border Control, Customs) linked during a suspect or confirmed biologic					
31		R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency					
32		R.4.2 System is in place for sending and receiving health personnel during a public health emergency					

Dropdowns

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PREDICT Year 5 GHSA workplan instructions

1. Spend some time with your country's JEE. The scores are important but more so is the context and the *"areas which need strengthening"* for each indicator. The GHSA template is designed to link PREDICT activities with these areas and to help a country move to the next capacity level. It is our charge to demonstrate how our plans do indeed support capacity gains across the target action packages.

2. Year 5 plans will differ from Year 4 as sampling winds down and efforts shift towards completion of viral testing, data analysis, risk characterization, and risk communication. This template retains Year 4 content for reference (in blue font), but as you will see in the Tanzania (Y5 model) tab, significant changes are expected to align our Year 5 approach with GHSA indicators and targets. When updating your country's activities (largely Columns D, I, and J), please consult PREDICT's *Year 5 Workplan and Sustainability Guidance* and the *Country Brief template.* these resources lay out some general guidance for Year 5 plans and should assist in mapping/adapting planned activities to the targeted GHSA capacity gains.

3. Clearly denote which quarters activities will take place. As shown in the Tanzania model, grey fill in a cell indicates the activity will take place during that quarter (amost all cells filled out as activiites are planned continuously throughout the year). White fill indicates no activity. Please update these cells (Columns E-H) to correspond with your country's plans.

4. Disregard the "Overview Budget" tab. UC Davis HQ will populate this when all country budgets are finalized for submission to USAID/W.

5. Engage USAID missions. There will not be regional workplan meetings with USAID this year. However, as with last year, there is an expectation that USAID missions will be informed of our Year 5 country plans in advance of submission to USAID/Washington. We encourage each country team to meet with your relevant USAID points of contact to discuss next year's activities and plans as a best practice. Please do not share any budget information.

6. General guidelines. Do not mention your organization's name or acronym in the document unless absolutely essential for understanding a specific point. USAID considers all of us "PREDICT". Similarly, activities need not be attributed to individuals by name or title.

BE BRIEF AND CONCISE. Only list significant plans or items of specific interest for each objective and activity/sub-activity.

DEADLINE:

	A	B	C
1	Project	PREDICT	
2	Country	FY19 Planned Budge	P-2 Notes
3	*Bangladesh*		
4	Cameroon		
5	Cote D'Ivoire		
6	Ethiopia		
7	*Guinea*		
8	*India*		
9	*Indonesia*		
10	Kenya		
11	*Liberia*		
12	Senegal		
13	*Sierra Leone*		
14	Tanzania		
15	Uganda		
16	*Viet Nam*		
17	**Total FY18 Planning Level**		

	A	B	C	D	E	F	G	H
1	**Project Name:**	**PREDICT**						
2	**Country:**	**Tanzania**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Feb 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period** *(PREDICT-2 Note: Numbers correspond with* Objectives, Activities, and Subactivities *listed in the All-country plan)*	**FY19Q 1**	**FY19Q 2**	**FY19Q 3**	**FY19Q 4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Strengthen zoonotic disease surveillance skills from field to lab across animal and human sectors through targeted and integrated One Health trainings and workshops.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Improve knowledge of priority zoonoses and emerging and re-emerging pathogens and strengthen communications across sectors by sharing data and information from One Health surveillance, behavioral risk, and viral detection activities.				
7	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Identify strategies and potential targets for interventions and promote policies and practices that reduce the risk of zoonotic disease transmission and spread.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**	**GHSA Workplan Notes from UC Davis HQ**	
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**		Though specific to Tanzania's JEE, the content and context should be relevant to all countries…. Notes shedding light on why D,I, and J were drafted to address TZ's JEE.	
5	Between the launch of the project in 2014 and March 2018, PREDICT's One Health surviellance team sampled over 1,800 animals and 350 people in at-risk communities, sampling efforts that served as learning laboratories by engaging regional and district-level veterinarians, medical officers, clinicians, and extension personnel. PREDICT's wildlife and human sampling activities provide rare opportunities to hone skills for zoonotic disease surveillance and to foster greater understanding and knowledge of One Health by putting it in action, and community outreach efforts serve to raise awareness of zoonoses, especially emerging diseases from wildlife with local communities. Building on these efforts in Year 5 (2018-2019) PREDICT will work closely with national and district-level stakeholders the animal, human, and wildlife/ecosystem health sectors to conduct trainings, transfer knowledge and capacity, and share insights targeting strategic improvements to the national surveillance system from field to lab.	• Surveillance activities in the Lake Zone (Kagera and Kigoma regions) led by the Sokoine University of Agriculture and Ifakara Health Institute teams are planned for completion by September 30, 2018. This work, conducted in close coordination with district level veterinary and public health professionals (District Veterinary Officers, District Medical Officers, and government health centre staff) will now shift towards data analysis and development of risk communication and outreach strategies to ensure project findings inform local and national One Health surveillance plans for priority diseases. • Additionally, efforts will intensify to transfer knowledge and skills from PREDICT's One Health surveillance team to district and national level field and laboratory staff on the frontlines of Tanzania's surveillance system.	The original TZ Year 4 plan is retained in this workbook for reference. Substantive changes were made to columns D, I, and J (a rewrite) so font is black for ease of reading/review. For this row, shifted focus away from sampling to transferring knowledge, skills, and capacities to do the sampling and testing work to parterns/staff in the national system.	
6	PREDICT data and information will be regularly shared with human, animal, and wildlife/ecosystem health sectors and laboratories and opportunities will be made available through trainings and workshops for cross-sectoral engagement and collaboration to strenghten surveillance system linkages and contribute to the One Health strategic plan. Findings reports will be shared with the NOHP through the most appropriate mechanism, which will be determined by platform members.	PREDICT will characterize zoonotic disease transmission risk to help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems. Our work will contribute to the evidence base on priority and emerging/re-emerging zoonoses as well as cultivate opportunities for communication and collaboration across animal and human health sectors (including human and animal laboratory systems).	Focused this one on cultivating linkages in the OH platform and sharing science and findings from surveillance and analytics that inform OH strategic plans on emerging and re-emerging zoonoses (and priorities).	
7	PREDICT insights on epidemiological, ecological, and behavioral risks for zoonotic disease transmission will be shared at all levels of the surveillance system to facilitate improved knowledge on zoonoses circulating in at-risk human communities along with opportunities for targeted surveillance and disease prevention and control. Additionally, opportunities will be provided for Tanzania's current health workforce to build technical skills and improve knowledge on zoonotic disease transmission dynamics and the One Health approach.	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with the National One Health Platform and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control; Consistent with weaknesses identified in P.4.1, PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems; PREDICT works with established channels (NOHP and others engaged in the operationalization of the One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the topics the means for more regular information exchanges between animal and human sectors.	Focused this one on improving skills and knowledge on disease prevention, control.	

	A	B	C	D	E	F	G	H
8	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	2	Strengthen the veterinary and animal health workforce through in-service trainings and workshops in core One Health skills required for zoonotic disease surveillance, viral detection, and risk reduction.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Improve advocacy and communication on One Health from subnational to national levels through regular data and information sharing and by catalyzing opportunities for meetings and collaboration aross animal, human, and wildlife/ecosystem health sectors.				
10	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Provide training opportunities across animal and human labs to enable implementation of standardized testing of human and animal samples (including wildlife) for priority zoonoses and emerging viral threats.				
11	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Detect priority zoonotic diseases and other emerging threats from different hosts and locations; characterize potential pathogens and determine risks for viral transmission, geographic and host distribution, and other epidemiological and ecological factors that may be associated with zoonotic viral evoluation, amplificaiton, and spread. This work will support the national lab system in identifying potential targets for surveillance and in improving knowledge and awareness of disease threats across the animal, human, and wildlife/ecosystem health sectors.				

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8	Through planned trainings and workshops Tanzania's animal health sector will have the opportunities to build core skills required for zoonotic disease surveillance, including for wildlife, from field sampling and epidemiology to disease detection in the lab. Additionally, our trainings will encourage One Health collaborations by bringing together members of the animal and human health workforce at district and national levels, including remote at-risk areas for zoonotic disease emergence and spread.	Through our partners UC Davis, SUA and IHA, PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (District Veterinary Officers, Veterinary Investigation Centres, Livestock Extension Officers, lab technicians in animal health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control. Our training will continue to emphasize skills for wildlife sampling and surveillance, another area in need of strengthening identified in the JEE.	Highlighting One Health concept and in service skill improvement, especially for wildlife as that is all in the JEE	
9	PREDICT is by design One Health in action. Through regular provision of briefings, information, data, and findings, we provide opportunities for continual cross-sectoral collaboration and communication. Our project provides a case in how to engage and communicate across animal and human health sectors at all levels of government and will serve as a model for replication at scale for the National One Health Platform.	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. Through our implementing partners SUA and the Ifakara Health Institute, our One Health network in Tanzania engages all ministries as well as the health workforce at the regional and district level in areas we operate. Our team actively participates in the National One Health Platform and contributed to the development of the One Health Strategic Plan.	Emphasizing how our info and data sharing can hit a weakness in the JEE. Best we can do for this one as we are not charged with developing the legal NOHP frameworks (e.g., MOUs, etc.) that formalize and operationalize a platform.	
10	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs Ifakara Health Institute and the Sokoine University of Agriculture. Both labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at Sokoine University of Agriculture and Ifakara Health Institute are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases (Ebola and Marburg, Rift Valley Fever, and zoonotic influenza viruses) and emerging viral threats. Both labs are now actively testing animal and human samples and serve as key training centers for students and professionals, including government staff from the national lab system.	Pretty straightforward. Not much in the JEE to target for PREDICT.	
11	Labs in Tanzania will be capable of detecting priority and emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network.	SUA provides referral services to the national lab system and contributes data for surveillance reporting; both SUA and IHI labs are considered referral nodes that strengthen detection and surveillance capabilities across both sectors.	Minor changes from Year 4.	

	A	B	C	D	E	F	G	H
12	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Routinely share data and information from animal and human disease surveillance activities with the National One Health Platform and across all mininistry partners to provide a case study in ways to improve formal cross-sectoral sharing of information/data. Briefings, data and reports will include lab findings, insights from One Health surveillance and behavioral risk activities, and analytical products (maps and models) of country-specific zoonotic disease risks.				
13	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	2	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
14	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing field and lab-based trainings and workshops for district and national-level staff targeting core skills for performing zoonotic disease surveillance-related activities, including animal, human, and wildlife/ecosytem health workers from remote regions/districts.				
15	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral trainings on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				

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12	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system. This year, PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs as noted above.	PREDICT is actively communicating and sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.	Minor changes from Year 4.	
13	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners, including the national lab system (TVLA, NHL, CVL, etc.) contributing to improvements in information sharing and linking of human and animal health sectors.	No changes from Year 4.	
14	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. In addition, we offer a short course certificate program in One Health for current and future professionals (Rx One Health). Trainings and workshops provide opportunities for collaboration to "design and deliver specialist short courses" for national and subnational managers, an area in need of strengthening in the JEE.	Trainings (in-service field and lab sessions and workshops) occur throughout the year; Our One Health short course is conducted in the summer (July/August) each year. Trainings are designed by UC Davis, Sokoine University of Agriculture (the lead implementing partner for PREDICT in Tanzania and the primary training ground for animal health professionals in-country) and Ifakara Health Institute. Our partners are training institutions that actively promote and engage students and career professionals in continuing education and we provide ongoing hands-on opportunities for students, interns, and staff to build technical skills and knowledge in field and lab settings. In addition, our field-based zoonotic disease surveillance activities actively engage and involve animal, wildlife/ecosystem, and human health professionals providing opportunities to strengthen skills across the full spectrum of surveillance, detection, and response. This year we will continue to explore opportunities to incorporate our training program and materials in short courses for national and subnational managers and will work to transfer knowledge, skills, and capabilties from our implementing partners (UC Davis, SUA and IHI) to staff in the national surveillance system and the National One Health Platform.	Condensed multiple rows of this action package into one as all speaking to some combination of in-service training or workshop for current or future health professionals. Still a lot of jargon here so I may edit down more after working with TZ team on specific plans.	
15	PREDICT is planning a data analysis workshop to strengthen and improve skills for risk analysis and characterization of biosurveillance, viral, behavioral, epidemiological, and ecological data. This workshop will equip team members with the skills and frameworks for analyzing and interpreting surveillance and lab data, for preparing briefings, reports, and manuscripts, and for communicating risk to partners in the National One Health Platform.	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.	This is a UCD concept - a data workshop for our country teams. Still a concept and work in progress that requires budget and cost assessment.	

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16	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
17	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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16	While not directly referenced in the JEE, PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected viral hemorrhagic fever outbreaks later confirmed as Ebola in neighboring Uganda and the Democratic Republic of Congo. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID).	No changes from Year 4.	
17		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu.	No changes from Year 4.	
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Tanzania**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Feb 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period** *(PREDICT-2 Note: Numbers correspond with* Objectives, Activities, and Subactivities *listed in the All-country plan)*	**FY18Q 1**	**FY18Q 2**	**FY18Q 3**	**FY18Q 4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	2	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**				
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**			
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens such as Ebola and MERS-COV (a weakness identified in the JEE) in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	• Surveillance activities in the Lake Zone (Kagera and Kigoma regions) will be implemented by the Sokoine University of Agriculture and Ifakara Health Institute teams in close coordination with district level veterinary and public health professionals (District Veterinary Officers, District Medical Officers, and government health centre staff). • Animal sampling activities are conducted in each quarter and in each season at all sites in tandem with data collection on enabling behavioral s for zoonotic disease risk and concurrently with sampling of people in at-risk communities (Kibondo area). • Syndromic surveillance activities at target health centers (Ujiji and Murongo) will take place throughout the calendar year.			
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.			
7	PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (District Veterinary Officers, Veterinary Investigation Centres, Livestock Extension Officers, lab technicians in animal health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT/Tanzania's primary animal health workforce implementing partner is the Sokoine University of Agriculture (SUA) College of Veterinary Medicine, the only veterinary school in the country and home of OHCEA and One Health Workforce. Through SUA, PREDICT provides multiple opportunities for student training, in-depth projects in the field and lab, and internships on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.			

	A	B	C	D	E	F	G	H
8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information from areas of the country identified as weaknesses in the national surveillance system for emerging threats and as hotspots for fevers of unknown origin. Through our activities we will improve knowledge and information on emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.				
9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with One Health Coordinating Unit and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control.	Active behavioral risk investigations in Tanzania and across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.			
10	Consistent with weaknesses identified in P.4.1, PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems.	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.			
11	PREDICT works with established channels (OHCU and others engaged in the operationalization of the One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the topics the means for more regular information exchanges between animal and human sectors.				
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partners SUA and the Ifakara Health Institute, our One Health network in Tanzania engages all ministries, and universities such as Muhimbili University of Health and Allied Sciences and Nelson Mandela. Our team actively participates in the One Health Coordinating Unit and contributed to the development of the One Health Strategic Plan. We also maintain active linkages to the South African Centre for Infectious Disease Surveillance, Afrique One, and OHCEA.			

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13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	2	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				

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13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs Ifakara Health Institute and the Sokoine University of Agriculture. Both labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at Sokoine University of Agriculture and Ifakara Health Institute are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases (Ebola and Marburg, Rift Valley Fever, and zoonotic influenza viruses) and emerging viral threats. Both labs are now actively testing animal and human samples and serve as key training centers for students and professionals, including government staff from the national lab system.			
14	Labs in Tanzania will be able to detect priority and emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network.	SUA provides referral services to the national lab system and contributes data for surveillance reporting; both SUA and IHI labs are considered referral nodes that strengthen detection and surveillance capabilities across both sectors.			
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.				
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.			
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners, including the national lab system (TVLA, NHL, CVL, etc.) contributing to improvements in information sharing and linking of human and animal health sectors.			

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18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. In addition, we offer a short course certificate program in One Health for current and future professionals.	Trainings (in-service field and lab sessions and workshops) occur throughout the year; Our One Health short course is planned for June 2018.			
19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	The lead implementing partner for PREDICT in Tanzania is the Sokoine University of Agriculture's College of Veterinary Medicine, the primary training ground for animal health professionals in-country. PREDICT is embedded within SUA and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.			
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.				
21	While not directly referenced in the JEE, PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected viral hemorrhagic fever outbreaks later confirmed as Ebola in neighboring Uganda and the Democratic Republic of Congo. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID).			
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu.			
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Bangladesh**						
3	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (May 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**Expected Quarter completion**			
4					**FY19 Q1**	**FY19Q2**	**FY19Q 3**	**FY19 Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	3	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				
8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**		
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**			
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the capacity and evidence base for both priority zoonoses and emerging and re-emerging pathogens in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	• Surveillance activities will be implemented by the IEDCR and EcoHealth Alliance in close coordination with the Forestry Office (FO), Department of Livestock Services (DLS) and government health center staff. • While concurrently sampling people in at-risk communities (Madaripur, Dhaka, and Dinajpur district), animal sampling activities are conducted in each quarter and in each season at all sites in tandem with data collection on risky behaviors identified through our in-depth behavioral work focusing on risk factors for zoonotic disease transmission. • Human biological surveillance will be initiated and implemented by IEDCR in collaboration with the medical college hospitals. Syndromic surveillance activities are planned for the following health centers: Dahaka Medical College Hospital and Faridpur Medical College Hospital and will continue throughout the calendar year.		
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems. PREDICT is conducting zoonotic disease surveillance using techniques that detect three of the four priority viruses identified by Bangladesh (avian influenza (influenza virus), Nipah virus (paramyxovirus) and Japanese encephalitis virus (flavivirus)), which will improve our understanding of the epidemiology of these diseases in Bangladesh.			
7	PREDICT provides critical in-service training opportunities for veterinary professionals, including those from partner institutions and students, which is building a lasting capacity on the use of surveillance systems. The One Health zoonotic disease surveillance program encourages the hands-on development of core skills lacking in the current animal and human health workforce. We will continue to offer trainings to health professionals (government veterinarians, extension agents, laboratory technicians in animal health labs, students, and local community members) directly strengthening the capacity of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT provides multiple opportunities for student training, including in-depth projects in the field and laboratory, and internships on all aspects of zoonotic disease surveillance, detection, prevention, response, and control. For example, this year, as part of global efforts to validate One Health approaches through the development of an evidence base and case studies that inform policies for risk reduction, a One Health Economics Fellow based at IEDCR will train with PREDICT to examine economic impacts of past and prospective emerging infectious disease events in Bangladesh by assessing impacts to different sectors and examining resource flows.		
8	PREDICT is actively assessing and improving mechanisms by which to respond to infectious and potential zoonotic diseases. This is achieved through the training of surveillance teams in the collection of samples, data and information from areas of the country identified as at-risk for zoonotic disease emergence and transmission and as hotspots for fevers of unknown origin. Through our activities we will improve knowledge and information on emerging threats and communicate these findings along with recommendations for the prevention and control of these diseases across both the animal and human health sectors.			

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9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				
13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				

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9	PREDICT is identifying behaviors associated with zoonotic disease transmission risk, which will continue to be shared with the One health secretariat and other relevant national partners. This information will also be presented at national conferences and meetings, such as the national One Health conference. By communicating these risk behaviors with our partners, the information can be used to collaboratively improve awareness and communication of potential disease threats and opportunities for prevention and control.	PREDICT team will work at livestock markets along the Indian border, investigating the animal value chain pathway of disease emergence. Active behavioral risk investigations in Bangladesh and across Asia are ongoing and providing insight and awareness of risk behaviors and practices at animal and human interfaces, which have been identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.		
10	PREDICT works with local communities to understand the context around behavioral risks for zoonotic disease transmission and spread. This work will be used to help identify feasible mitigation and intervention strategies that better inform and educate local communities. This trust and communication with the community naturally leads to improved two-way information flow between both formal and informal surveillance systems.	PREDICT works with the One Health Secretariat with the Government of Bangladesh and participates in meetings and discussions with the Secretariat. This partnership ensures communication of zoonotic disease risks, an essential first step towards addressing risks through policy and intervention.		
11	PREDICT works with the One Health Secretariat in the operationalization of the One Health Strategic Plan to communicate findings and recommendations to improve zoonotic disease prevention, detection, and control to a large audience. By providing partners with regular reports on PREDICT activities and findings, we support information exchanges between animal and human sectors. This communication improves and facilitates continued coordination.			
12	PREDICT is working with all of the One Health Secretariat and One Health Bangladesh implementing partners to establish the most successful mechanism for sharing data (including project information and results) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the PREDICT project is by design One Health in action, we share regular progress reports to catalyze discussion at the regularly scheduled GHSA coordination meetings organized by USAID and partners implementation meetings. In addition, all results are reported to the three government Ministries (the Ministry of Health and Family Welfare, the Ministry of Agriculture and the Ministry of Forest and the Environment) before the results are published or made public.	PREDICT will continue to participate in regular One Health Bangladesh and One Health Secretariat meetings with government and non-government organizations to facilitate successful multisectoral collaboration. PREDICT will also continue to train students and the next generation of veterinary public health and veterinary epidemiology students to improve effectiveness in the control and prevention of zoonotic diseases. The multidisciplinary nature of the PREDICT team and the close coordination between the veterinary team within PREDICT and IEDCR (with PREDICT team members based in the offices of IEDCR) is continuing to foster the relationships needed to reduce the communication gap identified by the JEE between animal and human health sectors.		
13	PREDICT partner laboratories at icddr,b and the IEDCR Virology Laboratory strengthens national laboratory systems by enabling disease detection through a One Health laboratory network. This linkage allows both laboratories to maintain strong ties to the national system and protocols, and information can be shared openly between the animal and human health laboratories. Through in-service training opportunities, PREDICT provides staff from the national laboratory system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	The PREDICT partner laboratories at IEDCR and icddr,b are trained and equipped for the full range of activities required for safely detecting zoonotic viruses, including: biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping, and molecular viral detection techniques. As a result, both laboratories have the capacity to safely detect priority zoonotic diseases and emerging viral threats. Both laboratories are now actively testing animal and human samples and serve as key training centers for students and professionals, including government staff form the national laboratory system.		

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14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	4	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	4	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	4	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				

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14	The PREDICT laboratories in Bangladesh are trained to detect the priority zoonotic diseases identified in the Bangladesh JEE assessment and PREDICT specifically has supported the training and implementation of assays for three of the four viral priority diseases. The laboratories are also able to detect any emerging viral threats from high-risk animal taxa and other wild and domestic animal species. Findings from PREDICT's collaborating laboratories are and will be shared across sectors and will provide opportunities for staff from national lab systems to communicate through the linked network.	PREDICT activities are expanding to medical college hospitals to work with human health specialists and physicians in order to improve the detection of the priority zoonotic viruses in the human population.		
15	PREDICT zoonotic disease surveillance is, by design, intended to facilitate early warning and situational awareness of biological events. Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. PREDICT data platforms capture information on animal and human threats, and we will provide relevant alerts and information to the national system.			
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with the existing ministry systems; along with information flows between animal and human health laboratories as noted above. Also noted above is that the aggregate results of the PREDICT testing is reported to three ministries prior to publication or public release.	PREDICT will continue to explore the best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, and promoting improvements in risk communications relevant to the national system. The secure database that is used to store and collate animal data has been updated to securely store human behavioral risk and biological surveillance data.		
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups and does so with regular partner updates.	Data and information from zoonotic disease surveillance and laboratories, and from the project as a whole, is routinely shared with government partners (GoB, DLS, etc.), including the national laboratory system, contributing to improvements in information sharing and linking of human and animal health sectors.		
18	PREDICT has developed a comprehensive One Health training program including modules for review and quizzes. Participants in PREDICT training that demonstrate an understanding of the key concepts can be given certificates, indicating that the participant was trained in the core skills by PREDICT professionals. Training is available to students, One Health workers and partner organizations engaging in zoonotic disease surveillance, detection, and response.			
19	PREDICT, along with IEDCR, provides trainings focused on a hands-on approach to teaching field surveillance techniques and laboratory testing standing operating procedures.			
20	A critical component of laboratory and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance laboratory analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.	PREDICT is supporting a One Health Policy Fellow, who is conducting a economic analysis of the benefits of the One Health approach to disease response in Bangladesh.		

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21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin. This expertise adds value to the existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations upon request, including behavioral risk investigations, which compliment national response plans. In addition, our laboratories are on stand-by, ready to support pathogen detection and identification, especially for outbreaks of unknown origin and commonly occurring diseases have been ruled out through hospital testing.	PREDICT has provided critical support for outbreaks of unknown origin and for suspected acute encephalitis outbreaks and crow die-offs later confirmed as H5N1 avian influenza. In these events, PREDICT laboratories and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights regarding findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support and when approved by USAID.		
22		All PREDICT teams manage and coordinate PREDICT in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu		
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Cameroon**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (self evaluation)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Strengthen zoonotic disease surveillance skills from field to lab, across animal and human sectors through targeted and integrated One Health trainings and workshops.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Improve knowledge of priority zoonoses and emerging and re-emerging pathogens and strengthen communications across sectors by sharing data and information from One Health surveillance, behavioral risk, and viral detection activities.				
7	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Identify strategies and potential targets for interventions and promote policies and practices that reduce the risk of zoonotic disease transmission and spread.				

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3	**Projected Capacities**							
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**						
5	PREDICT Cameroon will continue to support the national surveillance system and provide opportunities to strengthen local capacity for zoonotic disease surveillance and reinforce the mechanisms for responding to zoonotic disease threats. With PREDICT providing critical in-service training opportunities since the launch of the project in 2014, surveillance staff from the ministries of health, livestock, wildlife & forestry and environment (from the national, regional and district level) are now using a One Health approach to support the development of the country GHSA roadmap. PREDICT will work closely with national and district-level stakeholders and animal, human, and wildlife/ecosystem health sectors to conduct trainings, transfer knowledge and capacity, and share insights targeting strategic improvements to the national surveillance system, from field procedures to lab BS&S.	• Concurent surveillance activities in the South region are led by PREDICT Cameroon and Military Health Research Center teams in close coordination with the ministries responsible for livestock (MINEPIA), wildlife (MINFOF), environment (MINEPDED), and public health (MINSANTE) and are targeted for completion by September 30,2018. • Samples will be tested at the Military Health Research Centre (CRESAR) for priority viral families. • PREDICT surveillance activities will shift from concurrent sampling in high risk areas to characterization of zoonotic disease transmission risk, to help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems. • PREDICT will coordinate the transfer of the knowledge and skills necessary to perform disease surveillance to local staff, to provide capacity for ongoing surveillance.						
6	PREDICT data and information will be regularly shared with the One Health surveillance platform and laboratory network to help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems. PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. Reports of findings will be shared with the NOHP through the most appropriate mechanism, which will be determined by platform members.	PREDICT will characterize zoonotic disease transmission and communicate findings with the National One Health Platform and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control. Our work will contribute to the evidence base for priority and emerging/re-emerging zoonoses as well as cultivate opportunities for communication and collaboration across animal and human health sectors.						
7	PREDICT insights on epidemiological, ecological, and behavioral risks for zoonotic disease transmission will be shared at all levels of the surveillance system to facilitate improved knowledge on zoonoses circulating in at-risk human communities, along with opportunities to improve targeted surveillance and disease prevention and control.	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread, which helps identify feasible mitigation and intervention strategies. These strategies can better inform and educate local communities about disease risk, leading to improved two-way information flow between formal and informal surveillance systems. PREDICT works within established channels (NOHP and others engaged in the operationalization of the One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control. We provide the means for more regular information exchanges between animal and human sectors.						

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8	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	2	Strengthen the veterinary and animal health workforce through in-service trainings and workshops in core One Health skills required for zoonotic disease surveillance, viral detection, and risk reduction.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve advocacy and communication on One Health from subnational to national levels through regular data and information sharing and by catalyzing opportunities for meetings and collaboration aross animal, human, and wildlife/ecosystem health sectors.				
10	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training opportunities across animal and human labs to enable implementation of standardized testing of human and animal samples (including wildlife) for priority zoonoses and emerging viral threats.				
11	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations; characterize potential pathogens and determine risks for viral transmission, geographic and host distribution, and other epidemiological and ecological factors that may be associated with zoonotic viral evoluation, amplificaiton, and spread. This work will support the national lab system in identifying potential targets for surveillance and in improving knowledge and awareness of disease threats across the animal, human, and wildlife/ecosystem health sectors.				

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8	PREDICT will continue to support the national surveillance system and provide opportunities to strengthen local capacity for zoonotic disease surveillance, as well as the mechanisms for responding to zoonotic disease threats through planned training and workshops. These targeted trainings for the current One Health workforce to transfer skills and knowledge required for successful zoonotic disease surveillance will encourage hands-on development of core skills lacking in the current animal health workforce.	PREDICT Cameroon will continue to provide training opportunities to strengthen One Health capacity for surveillance in Cameroon as central, regional, and local ministry staff participate in zoonotic disease surveillance activities. PREDICT will participate in the Regional Ministry of Livestock and Wildlife coordination meetings to share PREDICT surveillance strategies, findings, successes, and lessons learned. PREDICT will continue to provide opportunities for student training through outbreak investigation and lab internships on all aspects of zoonotic disease surveillance: detection, prevention, response, and control.						
9	PREDICT is, by design, One Health in action. Through regular sharing of briefings, information, data, and findings, we provide opportunities for continual cross-sectoral collaboration and communication. PREDICT provides an example of how to engage and communicate across animal and human health sectors at all levels of government and will serve as a model for replication at scale for the National One Health Platform.	PREDICT has established data sharing and communication processes with the government through MINFOF, MINRESI, MINEPIA, MINSANTE, and MINEPDED. This will continue to be expanded to take into account the National Zoonoses Program and other government partners as appropriate to strengthen One Health linkages. PREDICT works with other EPT-2 partners (P&R, FAO, OHCEA) in the operationalization of the One Health Strategic Plan to communicate findings and recommend best practices for improving zoonotic disease prevention, detection, and response, establishing means for regular information sharing between the animal and human health sectors. PREDICT also participates in monthly coordination meetings with the Ministry of Public Health for surveillance and outbreak response strategic planning.						
10	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health national laboratory network, including our partnership with Military Health Research Centre (CRESAR); this lab will continue to be the primary location of PREDICT engagement. A strong network between PREDICT and national animal and human health labs enables sharing of protocols and information to improve linkages. Through in-service training opportunities, PREDICT provides staff from the national laboratory system opportunities to enhance skills in biosafety, lab safety and methods for detecting priority zoonotic diseases and other emerging threats. PREDICT detection protocols have been shared with partners' in-country laboratory (LANAVET, LNSP) personnel, who have also received bench training for molecular diagnostic techniques.	PREDICT partner labs (located at CRESAR) are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. CRESAR labs have the capacity to safely detect priority zoonotic diseases (Ebola, Marburg, and influenza viruses) and emerging viral threats. The CRESAR lab is now actively testing animal and human samples and serves as a key training center for students and professionals, including government staff from the national lab system (LANAVET, LNSP). Additionally, PREDICT will continue to work with the One Health national laboratory network to share viral findings and transfer PREDICT protocol.						
11	Developing and sharing new protocols will enable labs within the national laboratory system to be able to detect GHSA priority diseases (HPAI, Rabies, Ebola) and other emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from other national lab systems to learn within a linked network.	CRESAR provides referral services to the national lab system and contributes data for surveillance reporting. The CRESAR lab is considered a key national lab that strengthens detection and surveillance capabilities across both the human and animal sectors.						

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12	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Routinely share data and information from animal and human disease surveillance activities with the National One Health Platform and across all ministry partners to provide a case study in ways to improve formal cross-sectoral sharing of information and data. Briefings, data and reports will include lab findings, insights from One Health surveillance and behavioral risk activities, and analytical products (maps and models) of country-specific zoonotic disease risks.				
13	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
14	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing field and lab-based trainings and workshops for district and national-level staff targeting core skills for performing zoonotic disease surveillance-related activities, including animal, human, and wildlife/ecosytem health workers from remote regions/districts.				
15	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				

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12	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system. This year, PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing Ministry systems, along with information flows between animal and human health labs.	PREDICT will continue to strengthen collaboration with government and other EPT partners to support the integration of multi-sectoral surveillance data into an accessible resource for improved analysis, reporting, dissemination and decision making. PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national Ministry-level to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats, and PREDICT will evaluate the level of effectiveness through lessons learned, promoting improved risk communications relevant to the national system.						
13	PREDICT will continue to directly provide opportunities for improved communications and linkages between public health, animal health, and other key stakeholders, and will continue to share approved surveillance data with other government partners, EPT partners, and the public.	Results of testing of priority zoonotic diseases from wildlife and humans are routinely shared with government partners (MINFOF, MINRESI, MINEPIA, MINSANTE, and MINEPDED) in an effort to improve information sharing and linkage of human and animal health sectors within the country. This provides an alert system for emerging zoonotic diseases of public health importance.						
14	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Trainings and workshops provide opportunities for collaboration to "design and deliver specialist short courses" for national and subnational managers, an area in need of strengthening in the JEE.	PREDICT supports the training of the One Health workforce in accordance with national One Health disease detection, prevention, risk characterization and modeling needs. Human resources development to meet IHR and OIE requirement needs to be sustainable by the government with technical support from other EPT partners. PREDICT provides ongoing opportunities to current and future animal and human health professionals (students, interns) using the One Health approach. In addition, field-based zoonotic disease surveillance activities actively engage and involve animal, wildlife/ecosystem, and human health professionals providing opportunities to strengthen skills across the full spectrum of surveillance, detection, and response. This year, PREDICT will continue to explore opportunities to deploy our training program and materials with others EPT2 partner (FAO, OHCEA).						
15	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin, that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. PREDICT-trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations and population sensitization to compliment national response plans. In addition, PREDICT labs stand ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through routine testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected zoonotic infections such as the H5N1, Monkey pox virus outbreaks, bat die-off events in the Far North of Cameroon. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. PREDICT teams remain in a state of preparedness to engage when requested by the host government and approved by USAID.						

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16	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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16	PREDICT will continue to work closely with all EPT-2 partners and governmental partners for the operationalization of One Health and the GHSA road map.	The PREDICT Cameroon team works in collaboration with the global team and in-country EPT-2 and GHSA partners ensuring compliance with national and local laws and regulations for successful implementation of the project and completion of all deliverables. For more information on our operations, please contact predict@ucdavis.edu.						
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Cameroon**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (self evaluation)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Improve surveillance systems for priority zoonotic diseases and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological, behavioral, and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	2	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**							
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**						
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data for both priority zoonoses (Filoviruses, such as Ebola and Marburg, and Influenza viruses) and emerging and re-emerging pathogens in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, surveillance activities engage local communities in high-risk areas for disease transmission and emergence.These activities foster improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. PREDICT will intensify community engagement and work to identify methods to measure local awareness of zoonotic disease threats through sharing of PREDICT protocols and training on wildlife sampling.	• Surveillance activities in the South region will be implemented by PREDICT Cameroon and Military Health Research Center (CRESAR) teams, in close coordination with the Ministries responsible for livestock (MINEPIA), wildlife (MINFOF), environment (MINEPDED) and public health (MINSANTE). • Animal sampling activities are conducted in each season at all sites in tandem with data collection pertaining to risk behavior associated with zoonotic disease transmission and concurrently with sampling of people in highly-exposed communities (Ebolowa, Meyomessala, and Sangmelima). • Syndromic surveillance activities at target health centers (Meyomessala and Sangmelima) will take place throughout the calendar year. • Samples will be tested at the Military Health Research Centre (CRESAR) for priority viral families such as filo- and influenza viruses.						
6	By identifying and characterizing high-risk interfaces, epidemiological and behavioral risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.						
7	PREDICT will continue to support the national surveillance system and provide opportunities to strengthen local capacity for zoonotic disease surveillance and reinforce mechanisms for responding to zoonotic disease threats. By providing critical in-service training opportunities to surveillance staff from the ministries of livestock, wildlife & forestry and environment (from the national, regional and district level) using a One Health approach to support the development of the country GHSA roadmap. These trainings will encourage hands-on development of core skills lacking in the current animal health workforce in order to strengthen the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control, including priority zoonotic diseases such as avian influenza virus and hemorrhagic fevers (Ebola, Marburg, etc.).	• PREDICT Cameroon primary animal health workforce collaborators are the Ministry of Forestry and Wildlife, the Central Veterinary Laboratory, the National Program for the Control and Fight Against Emerging and Remerging Zoonoses (National Program for Zoonoses), researchers from the University of Douala and the University of Maroua. PREDICT has provided opportunities for student training through field and lab internships on all aspects of zoonotic disease surveillance: detection, prevention, response, and control. • In collaboration with the Central Veterinary Laboratory and the National Program for Zoonoses, PREDICT has supported outbreak investigations and animal-die off events through testing of field samples at the PREDICT lab at CRESAR.						

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8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk of zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information from areas of the country identified as weaknesses in the national surveillance system for emerging threats and as hotspots for fevers of unknown origin. PREDICT activities will improve knowledge and information on emerging threats and communicate these findings, with recommendations for prevention and control, across both the animal and human health sectors.	Through collaboration with the Military Health Research Centre (CRESAR), PREDICT has trained local government staff and university interns from the University of Yaounde 1 in advanced techniques for detection of priority zoonotic diseases.						
9	PREDICT will characterize risk and identify behaviors associated with zoonotic disease transmission by targeting individuals with high levels of occupational exposure to wildlife (hunters, trappers, butchers, market sellers, middle men, transporters). Findings will be shared within the One Health network and other relevant national partners to enable improved awareness of potential exposure risk and disease threats, as well as opportunities for prevention and control.	Behavioral risk characterizations in Cameroon and along the Congo Basin within the animal value chain and other interfaces are providing insight and awareness of behaviors and practices at high-risk animal and human interfaces that constitute threats for zoonotic disease spillover and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable, along with intervention strategies that are targeted to the local communities.						
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and collects data from high risk individuals (hunters, trappers, butchers, market sellers, middle men, transporters). This helps identify inclusive mitigation and intervention strategies that better inform and educate local communities, leading to improved two-way information flow between formal and informal surveillance systems.	PREDICT conducts ethnographic interviews, focus groups, and sensitization meetings and engages in regular communications with national, regional, district and community leaders. We are encouraging community engagement and participation in the prevention of zoonotic disease transmission, and working on improving methods to track the impact of these activities and mitigate risk of exposure to zoonoses.						
11	• PREDICT works with other EPT-2 partners (P&R, FAO, OHCEA) in the operationalization of the One Health Strategic Plan to communicate findings and recommend best practices for improving zoonotic disease prevention, detection, and response, establishing means for regular information sharing between the animal and human health sectors. • PREDICT participates in monthly coordination meetings with the Ministry of Public Health for strategic planning of surveillance and outbreak response. • PREDICT has trained staff within several government ministries who can be readily deployed in the field in case of an outbreak or other zoonotic disease threats.	PREDICT has established data sharing and communication processes with the government through MINFOF, MINRESI, MINEPIA, MINSANTE, and MINEPDED. These will continue to be expanded to take into account the National Zoonoses Program and other government partners as appropriate to strengthen One Health linkages.						
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors, encouraging active discussion and communication among sectors.	Through our implementing partner CRESAR, our One Health network in Cameroon engages the ministries of livestock, wildlife, environment, and public health, and universities such as the University of Yaoundé and the University of Maroua. Our team actively participates in the One Health Coordinating Unit (National Zoonoses Program) and contributed to the development of the One Health strategic plan.						

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13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Synthesize data and provide a secure database to house aggregated human behavioral risk data, biological surveillance results, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				

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13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health national laboratory network, including our partnership with CRESAR. A strong network between PREDICT and national animal and human health labs enables sharing of protocols and information to improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting priority zoonotic diseases and other emerging threats. PREDICTdisease detection protocols have been shared with partners, and CRESAR and other in-country laboratory personnel received bench training for molecular diagnostic techniques.	PREDICT partner lab (CRESAR) staff are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping, and molecular viral detection techniques. CRESAR labs have capacity to safely detect priority zoonotic diseases (Ebola, Marburg, and influenza viruses) and emerging viral threats. CRESAR lab is now actively testing animal and human samples and serves as a key training center for students and professionals, including government staff from the national lab system (LANAVET, LNSP).						
14	Developing and sharing new protocols will enable labs within the national laboratory system to be able to detect GHSA priority diseases (HPAI, Rabies, Ebola) and other emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from other national lab systems to learn within a linked network.	CRESAR provides referral services to the national lab system and contributes data for surveillance reporting; CRESAR lab is considered a key national lab that strengthens detection and surveillance capabilities across both the human and animal sectors.						
15	PREDICT zoonotic disease surveillance is by design intended to proactively provide warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through the Emerging Infectious Disease Technology Hub (EIDITH), we store field-based data, as well as outbreak data, to enhance early warning of disease threats and to provide relevant alerts and information to the government and other EPT-2 partners. Also, through our partners; the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats.	PREDICT continues to strengthen collaboration with government and other EPT partners to support the integration of multi-sectoral surveillance data into one accessible resource by contributing sectors for improved analysis, reporting, dissemination, and decision making.						
16	PREDICT will explore options to integrate multi-sectoral surveillance data, disease reports and alerts, and other relevant information with existing ministry partners, along with information flow between animal and human health labs. This aims to decrease the time between detection and reporting.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.						
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other key stakeholders. We will continue to share approved surveillance data with other government partners, EPT partners, as well as to the public.	Results of testing of priority zoonotic diseases from wildlife and humans are routinely shared with government partners (MINFOF, MINRESI, MINEPIA, MINSANTE, and MINEPDED) in a bid to improve information sharing and linkage of human and animal health sectors within the country. This provides an alert system for emerging zoonotic diseases of public health importance.						

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18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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18	PREDICT has developed a comprehensive One Health training program including study modules and quizzes covering core skills and competencies required by professionals engaging in zoonotic disease surveillance, detection, and response.	In collaboration with the CDC FELTP, PREDICT has supported the training of several epidemiologists with different backgrounds (medical doctors, veterinarians, lab technicians, biologists, etc.).						
19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector where the focus is on biosafety, waste management, and safe capture and handling of mammals such as bats, non-human primates and rodents, which represent the highest risk for viral spillover and spread to humans. PREDICT field trips routinely include partners from the ministry of forestry and wildlife, ministry of environment and the ministry of fisheries and animal production. Our partners are exposed to the full spectrum of surveillance, detection, and response strategies.	PREDICT provides ongoing opportunities to current and future animal and human health professionals (students, interns) using the One Health approach. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs. National One Health focal points and the local government staff have been involved in field surveillance activities, and we will continue to engage with them to ensure the operationalization of the One Health approach.						
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics as well as in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.	PREDICT supports the training of the One Health workforce in accordance with national One Health disease detection, prevention, risk characterization and modeling needs. Human resources development to meet IHR and OIE requirement needs to be sustainable by the Government with technical support from other EPT partners.						
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations and population sensitization to compliment national response plans. In addition, our labs stand by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through routine testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected zoonotic infections such as the H5N1 and Monkey pox outbreaks in 2016 and the recent bats die-off in the Far North of Cameroon. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage when requested by the host government and approved by USAID.						
22	PREDICT will continue to work closely with all EPT-2 partners and governmental partners for the operationalization of One Health and the GHSA road map.	The PREDICT Cameroon team works in collaboration with the global team and in-country EPT-2 and GHSA partners ensuring compliance with national and local laws and regulations for successful implementation of the project and completion of all deliverables.						
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Cote D'Ivoire**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Dec 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	3	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**							
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**								
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for priority zoonotic diseases such as viral hemorrhagic fevers and arboviruses, HPAI, and SARS and MERS CoVs and emerging and re-emerging pathogens in vulnerable and high-risk areas. PREDICT is actively engaged in integrating animal, human and wildlife surveillance systems by means of synchronized animal, human, and wildlife sampling through implementing partners in CIV in coordination with FAO and GOCI. Human and wildlife surveillance data and findings are also shared internally for analysis and with the broader community of stakeholders as appropriate, which will help catalyze systematic information sharing between animal, human, and wildlife sectors. Finally, PREDICT participates in GOCI GHSA coordination meetings and will be a member of the GHSA surveillance technical working group, which will have representation from the Ministry of Health and Public Hygiene and the Ministry of Animal Resources, among other stakeholders, thus facilitating formal ties linking veterinary laboratories such as the Laboratoire National d'Appui au Development Agricole (LANADA) with technical partners (MoH and MoA), a broader JEE-identified priority action.	• Surveillance activities in the Marahoué National Park area will be implemented by teams from LANADA and the Institut Pasteur du Côte d'Ivoire (IPCI). • Animal sampling activities are conducted at least semiannually in tandem with data collection on enabling behaviors for zoonotic disease risk and concurrently with sampling of people in at-risk communities (in and around the park). • Syndromic surveillance activities at a target health center (Centre de Sante de Bono) will take place throughout the calendar year.							
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.							
7	PREDICT provides critical in-service training opportunities through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills critical to the current animal health workforce. We will continue to offer trainings to animal health professionals (lab technicians in animal health labs, local community members), directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT/CIV's primary animal health workforce implementing partner is Laboratoire National d'Appui au Developpement Agricole (LANADA). Through LANADA, PREDICT provides multiple opportunities for training and in-depth projects in the field and lab on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.							

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8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information from an area of the country identified as a key point in the national surveillance system for emerging threats and as a potential hotspot for fevers of unknown origin. Through our activities we will improve knowledge and information on emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.								
9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control.	Active behavioral risk investigations in CIV and across Africa and Asia are providing insight into and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.							
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities. This is done by means of qualitative interviews, focus groups, and participant observations on risk and protective factors, and intervention recommendations developed in conjunction with behavioral questionnaires and ecological, biological (animal and human), and modeling and analytics findings. These activities lead to improved two way information flows between formal and informal surveillance systems.	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.							
11	PREDICT works with established channels to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide topics and means for more regular information exchanges between animal and human sectors. Based on research to date, we are currently developing content for a safe bat-human interaction intervention.								
12	PREDICT is working to establish data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors. PREDICT has a real-time web-based data management and dashboard reporting system, and has conducted outbreak response training for all project personnel.	PREDICT participates in GOCI GHSA coordination meetings and will be a member of the GHSA surveillance technical working group, which will have representation from the Ministry of Health and Public Hygiene and the Ministry of Animal Resources, among other stakeholders, thus facilitating formal ties linking the animal health sector (e.g., Laboratoire National d'Appui au Developpement Agricole - LANADA) with technical partners (MoH and MoA), a broader JEE-identified priority action.							

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13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.4.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
18	Workforce Development	D.5.1 Human resources are available to implement IHR core capacity requirements	2	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities .				

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13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs Laboratoire National d'Appui au Developpement Agricole (LANADA) and the Institut Pasteur du Côte d'Ivoire (IPCI). Both labs will share protocols and information openly with other animal and human health labs. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	Staff at LANADA and IPCI are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases and emerging viral threats. Both labs are now actively testing animal and human samples and can serve as key training centers for students and professionals, including government staff from the national lab system.							
14	Labs in CIV will be able to detect priority and emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked One Health laboratory network.								
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats) across sectors. Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we are equipped to provide relevant alerts and information to the national system.								
16	This has already been accomplished. Going forward, PREDICT will work with external partners and explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems, along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.							
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	PREDICT/CIV is working to routinely share data and information from zoonotic disease surveillance and labs, and from the project as a whole, with government partners, including the national lab system, contributing to improvements in information sharing and linking of human and animal health sectors.							
18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response and complimentary to field epidemiology training programs. In addition, we offer a short course certificate program in One Health for current and future professionals.								

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19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. We will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	PREDICT field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.							
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics.								
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin, that adds value to existing national capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected viral hemorrhagic fever outbreaks later confirmed as Ebola in Uganda and the Democratic Republic of Congo. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID).							
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu							
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Ethiopia**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (March 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	4	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	4	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	3	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				
8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**							
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**								
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens such as Ebola and MERS-COV in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	Surveillance activities will continue to be implemented in the Awash Region and Bati Regions by the Aklilu Lemma Institute of Pathobiology (ALIPB – University) at Addis Ababa University in close coordination with district level veterinary and public health professionals including local health center staff. Animal sampling activities are conducted throughout the year at all sites. Furthermore, syndromic surveillance activities at target health centres such as at the Awash Health Center will take place throughout the calendar year.							
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.								
7	PREDICT provides critical in-service training opportunities through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (e.g. government vets, extension officers, lab technicians in animal health labs, researchers, and local community members), directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT/Ethiopia's primary animal health implementing partner is the Aklilu Lemma Institute of Pathobiology (ALIPB – University) at Addis Ababa University. There is ongoing engagement with the National Animal Health Diagnostics and Investigation Center (NAHDIC) in the training of their staff in procedures and protocols for zoonotic disease detection. Additionally, ALIPB provides reference support to the national surveillance system. Through ALIPB, PREDICT provides multiple opportunities for critical training of animal health professionals across the educational and government sectors on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.							
8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information from areas of the country identified as hotspots for fevers of unknown origin and zoonotic disease transmission. Through our activities we will improve knowledge and information on priority zoonoses and emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.	PREDICT will continue to foster discussions and collaborations in multi-sectoral efforts to strengthen the One Health Platform in Ethiopia.							

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9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk of zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				
13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				

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9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control.	Active behavioral risk investigations across Africa and Asia, and soon to be launched in Ethiopia, are providing insights and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.							
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems.	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.							
11	PREDICT works with established channels (e.g., partners engaged in the development of the national One Heath platform, One Health Communication Network) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we utilize a One Health transdisciplinary and cross-sectoral approach for more regular information exchanges between animal and human sectors.								
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partners ALIPB, NAHDIC, and EPHI, our One Health network in Ethiopia engages various ministries and agencies such as the Ministry of Health, Ministry of Environment, FAO, and Center for Disease Control in Ethiopia. Our team actively participates in the One Health Communication Network.							
13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs the Aklilu Lemma Institute of Pathobiology (ALIPB – University) at Addis Ababa University and the National Animal Health Diagnostics and Investigation Center (NAHDIC) along with the public health lab at the Ethiopia Public Health Institute. All three labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at Aklilu Lemma Institute of Pathobiology, the National Animal Health Diagnostics and Investigation Center (NAHDIC) and the Ethiopia Public Health Institute are trained and equipped for the wide range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. All labs have gained and are improving capacity to detect priority zoonotic diseases and emerging threats; a critical step in achieving this was the establishment of a training center for the animal health sector at ALIPB that provides reference support to the national surveillance system In addition, the ALIPB lab serves as a key training center for students and professionals, including government staff form the national lab system.							

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14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				

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14	Labs in Ethiopia will be able to detect priority zoonotic diseases and emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network.	ALIPB-Addis Ababa University works closely with the national lab system and contributes data for surveillance reporting; NAHDIC (animal focus) and EPHI (human focus) are collaborating labs that can work closely with ALIPB to strengthen detection and surveillance capabilities across both sectors.							
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.	PREDICT/Ethiopia will continue to provide quarterly updates of disease surveillance activities to all ministry partners to assist in data dissemination from a One Health perspective. Included in these reports will be links to HealthMap and other partner communications tools to enhance awareness of zoonotic disease surveillance activities in Ethiopia and throughout East Africa.							
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will incorporate an adaptive approach considering lessons learned and promoting improvements in risk communications relevant to the national system							
17	PREDICT will provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs is regularly shared with government partners, such as EPHI, EWCA, MOH, and NAHDIC to contribute to improvements in information sharing and linking of human and animal health sectors. Data approved for release is also shared on the PREDICT global website.							
18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. In addition, we offer a short course certificate program in One Health for current and future professionals.	Trainings (in-service field and lab sessions and workshops) occur throughout the year; the One Health short-course is planned for June 2018.							

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19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	The lead implementing partner for PREDICT in Ethiopia is the Aklilu Lemma Institute of Pathobiology at Addis Ababa University, the primary training ground for animal health professionals in-country. PREDICT is embedded within ALIPB and the project provides ongoing opportunities for government and university staff to engage in project activities. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.							
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.								
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Center capacity for effective activation in an emergency. Our trained wildlife and human health team members are equipped to participate in outbreak investigations, including field, laboratory and behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected viral hemorrhagic fever outbreaks later confirmed as Ebola in Uganda and the Democratic Republic of Congo. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID). The PREDICT Ethiopia team remains engaged and in compliance with the National Public Health Emergency Guidelines and national Emergency Preparedness and Response Plan.							
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu							
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Guinea**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (April 2017)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q 1**	**FY19Q 2**	**FY19Q 3**	**FY19Q 4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	2	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**							
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**								
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens, specifically Ebola, in vulnerable and high-risk areas. Shared animal surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats especially as it relates to Ebola virus disease and filovirus emergence and spillover.	Surveillance activities in the Forest region (Kissidougou, Guéckédou, Macenta, and N'Zérékoré Prefectures) will be implemented by the PREDICT Guinea team through the Viral Hemorrhagic Fever Laboratory (VHF Lab-Guinea) of GAMAL University of Conakry in close coordination with Prefecture and district level veterinary, environment and public health professionals (Prefecture/District Veterinary Officers, Prefecture/District Medical Officers, Prefecture/District Environmental Officers) Animal sampling activities are conducted continuously in each quarter and in each season at all sites. In concert with sampling activities, PREDICT plans to collect in-depth, standardized, quantitative data using a targeted questionnaire (where feasible) on human activities and behaviors that may enable zoonotic disease transmission and spread among at-risk populations.							
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk (specifically Ebola), PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats, specifically Ebola in Guinea. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.							
7	PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (Prefecture and District Veterinary and Livestock Officers, lab technicians in animal and human health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT/Guinea is based at the Viral Hemorrhagic Fever Lab of Guinea (VHF Lab-Guinea). PREDICT/Guinea's animal health workforce team is supported by the Ministry of Environment, Ministry of Livestock, Ministry of Health, and Ministry of Higher Education and Research. Through the VHF-Guinea and Government partners, PREDICT provides multiple opportunities for student training, in-depth projects in the field and lab, and internships on all aspects of zoonotic disease surveillance, detection, prevention, response, and control. As outlined in the JEE as a deficiency, PREDICT will establish communications and foster cross-training activities with all partners where feasible to encourage broader workforce development.							

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8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses, especially Ebola in Guinea, by training surveillance teams and collecting data and information on potential Ebola host species from areas of the country identified as hotspots for fevers of unknown origin. Through our activities we will improve knowledge and information on Ebola and other emerging zoonotic threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.	PREDICT will continue to foster discussions and collaborations on multi-sectoral zoonosis detection and response, in coordination with the national One Health Platform and provide technical input when requested.							
9	As budget allows, PREDICT will identify behaviors associated with zoonotic disease transmission risk, in particular Ebola, and will communicate findings with the National One Health Platform and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control	Active behavioral risk investigations across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Specific to the Ebola Host Project in Guinea, Liberia and Sierra Leone, PREDICT is identifying Ebolavirus risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.							
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems. For Ebola Host Project countries such as Guinea, PREDICT targets mitigation and intervention strategies specific to Ebola and other Viral Hemorrhagic Fevers.	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.							
11	PREDICT works with established channels (One Health Platform and others) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the topics and the means for more regular information exchanges between animal and human sectors.	PREDICT has facilitated initial district level One-Health platform meetings in the Forest Area of Guinea. PREDICT/Guinea will facilitate initial meetings of district One-Health platforms to promote mechanisms for responding to zoonotic health threats (in coordination with other EPT partners such as P&R, WHO, and FAO) in Guéckédou, Kissidougou, Macenta and N'Zéreekoré Prefectures.							
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partner the VHF Lab-Guinea, our One Health network in Guinea engages all ministries and partners such as the Ministry of Health, Ministry of Environment, Ministry of Livestock and Ministry of Higher Education and Research. Our team actively participates in the newly formed National One Health Platform.							

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13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				

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13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner lab VHF Lab - Guinea. VHF Lab-Guinea is within the national system and protocols and information will be shared openly with other animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	Staff at PREDICT partner, the VHF Lab-Guinea, are being trained in the full range of activities required for safely detecting filoviruses such as Ebola, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, the VHF Lab-Guinea will have the capacity to safely detect priority zoonotic diseases (e.g., Ebola and Marburg viruses). The VHF Lab-Guinea will serve as a key training center for students and professionals, including government staff form the national lab system.							
14	The VHF-Lab Guinea will be able to detect Ebola and will learn skills required for detection of priority zoonoses and emerging viral threats. Findings from PREDICT's Ebola Host Project will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network.	The VHF-Lab Guinea is within the national lab system and contributes data for surveillance reporting; The VHF-Lab Guinea strengthen detection and surveillance capabilities across both human and animal health sectors.							
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.	PREDICT/Guinea will continue to provide quarterly updates of disease surveillance activities to all ministry partners to assist in data dissemination from a One Health perspective. Included in these reports will be links to HealthMap and other partner communications tools to enhance awareness of zoonotic disease surveillance activities in Guinea and throughout West Africa.							
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.							
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, will be shared with government partners, the newly formed One Health Platform and the national lab system (VHF-Lab-Guinea, National Veterinary Laboratory, National Institute of Public Health, etc.) contributing to improvements in information sharing and linking of human and animal health sectors.							

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18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. In addition, we offer a short course certificate program in One Health for current and future professionals.								
19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals, particularly government, in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	PREDICT/Guinea partners with the Ministry of Livestock, the Ministry of Environment, Ministry of Health and the Ministry of Higher Education and Research, at the National, Prefecture and District level. PREDICT is embedded within the VHF-Lab Guinea and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.							
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.								
21		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu							
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**India**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (self assessment)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				

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3	**Projected Capacities**										
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**									
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in designated high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats. and impact of human behavior on disease dynamics.	• Surveillance activities in the Maharajganj area of Uttar Pradesh will be implemented by the Sanjay Gandhi Institute of Postgraduate Medical Sciences, Veterinary College, Mathura and PREDICT teams in close coordination with hospital clinicians, district livestock officials and wildlife officers. • Animal sampling and processing activities are conducted in each quarter and in two seasons at all sites in tandem with data collection on enabling behaviors for zoonotic disease risk and concurrently with sampling of people in at-risk communities (Maharajganj area). • Syndromic surveillance activities at target health centers in Maharajganj area will take place throughout the calendar year.									
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems. PREDICT activities will also contribute towards better understanding of zoonotic disease epidemiology in India along with contributions to the global science and health communities.	PREDICT data and analyses consistently support improved decision making and management of novel viral zoonotic diseases by the state and national authorities. PREDICT inputs shall help to refine surveillance strategies for better understanding of epidemiology and risk assessment.									

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7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	2	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				
8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				

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7	PREDICT plans to provide training opportunities through its One Health zoonotic disease surveillance program that encourages hands-on development of wildlife capture and sampling skills lacking in the current animal health workforce. We plan to offer trainings to veterinary and wildlife professionals in Uttar Pradesh directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job in context of disease surveillance, diagnosis and control of zoonotic diseases.	PREDICT, through Sanjay Ghandi, will provide field and lab -based opportunities for enhancing capabilities of state agencies and federal institutions in both animal health and human health sectors for zoonotic disease-related skills, especially with regard to surveillance, detection, prevention, response, and control.									
8	PREDICT is actively assessing and improving mechanisms for responding to infectious diseases and potential zoonoses by training surveillance teams and collecting data and information from sites identified as high risk for zoonotic disease transmission and clinics treating a high number of fever of unknown origin and acute encephalitis patients. Through our activities PREDICT will improve knowledge and information on priority and emerging threats and communicate these findings to state and national authorities and the global community with recommendations for prevention and control across both the animal and human health sectors.	PREDICT/India activities will improve our understanding zoonotic disease epidemiology for priority zoonotic diseases and other emerging threats in both wildlife and humans. This work will help provide context for biological, ecological and behavioral parameters, evidence that can be converted into actionable prevention and control measures. Project information and data, which shall be communicated widely, will also enhance currently available policy and scientific knowledge helping inform health security strategies in India and the greater South Asia region.									
9		PREDICT/India activities address human behaviors, attitudes, practices and socio-cultural norms prevailing in local areas and investigates their contribution to zoonotic disease transmission. Based upon these observations, PREDICT will make efforts to crystallize specific factors/interventions for incorporation into strategies for prevention, control and containment of zoonotic viruses.									
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and their spread, and helps identify feasible mitigation and intervention strategies that better inform local communities leading to improved two way information flows between formal and informal surveillance systems to understand epidemiology of zoonotic diseases.	At all surveillance sites, PREDICT conducts biological, ecological and behavioral investigations to identify mechanisms for zoonotic disease transmission, as well as possible targets for interventions with the potential to reduce the transmission and spread of zoonotic viral infections. The information generated will add value to the formulation of disease containment strategies and other policies targeting disease prevention, management, and control.									

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11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				
13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	2	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	2	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				

	I	J	K	L	M	N	O	P	Q	R	S
11	PREDICT works with established channels to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the topics the means for more regular information exchanges between animal and human sectors and also share evidence generated in the field.	Making One Health central to PREDICT's work, efforts are being made, in collaboration with various partners to design mechanism for efficient implementation of a One Health approach. The lessons learned from this work shall be useful to strengthen and enhance collaboration between human and animal health sectors.									
12	PREDICT establishes data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Data generated through PREDICT's zoonotic disease surveillance and detection activities shall be communicated to various government agencies, as per national law and mutually agreed mechanisms. Data and information can subsequently be made use of by the relevant national authorities in any possible way to prevent or respond to the threat of zoonotic diseases.									
13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs mainly at the Sanjay Gandhi Institute of Postgraduate Medicine, Lucknow and a Veterinary College at Mathura in Uttar Pradesh. Both labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in virology, quality system, biosafety, lab safety and methods for detecting emerging threats.	PREDICT, through its partners, shall provide opportunities for imparting training to technologists working in human and animal health sectors to augment their capacity in processing of animal specimens in the laboratories for diagnosis as well as molecular characterization techniques. These technologists can be at national or state level and will be trained on request of their employers.									
14	Findings from PREDICT's collaborating labs will be shared with state and federal agencies across sectors. The laboratory activities will not only identify zoonotic viruses, but shall also undertake molecular characterization of these viruses to detect emerging threats. This will provide additional evidence on emerging epidemiology of zoonoses and help national authorities in instituting appropriate prevention, control, and response measures.	PREDICT shall detect known and emerging zoonotic viruses in wildlife and people and will work through longitudinal monitoring and analytics that incorporate host range and risks of transmission to improve understanding of disease transmission risk to inform prevention and mitigation measures. This evidence base has the potential to be converted into workable interventions to mitigate zoonotic viral infections.									

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15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	1	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				

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15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we shall combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.	PREDICT shall, in collaboration with its partners, develop analytical methods for deriving information from field based data with real-time digital disease detection capacity. The resultant alerts shall be useful to global science as well as local and national authorities in outbreak intelligence.									
16	PREDICT will explore options to better engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs/sectors.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups at different levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the local and national system.									
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups, both at national and provincial levels.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, will be routinely shared with government partners, including the national lab system (ICMR, NIV, etc.) contributing to improvements in information sharing and linking of human and animal health sectors.									
18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and material for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. In addition, we offer a short course certificate program in One Health for current and future professionals.	Opportunities for training clinicians and other workers for identifying suspect IHR related diseases shall become available to those working in the project area. This will be of immense use in enhancing their skills. Additional staff will also be trained using One Health modules etc. with the help of all EPT-2 partners.									

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19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	1	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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19	Through field and lab-based trainings, PREDICT will directly enhance skills of the existing veterinary and human health workforce with a niche focus on biosafety and safe capture and handling of wildlife such as bats, rodents, and nonhuman primates which represent the highest risk for viral spillover and spread to people. Our partners include graduate level educational institutions (Sanjay Gandhi Institute for Postgraduate medical Sciences and DVASU veterinary college in Mathura) that actively engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational health officials.	The lead implementing partner for PREDICT in India is the Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, a tertiary care hospital and a premier research Institute in medical sciences in India. PREDICT is embedded within SGPGIMS and the project provides ongoing opportunities for students, interns, and staff to engage in project activities and upgrade their skills. In addition, field activities engage and involve animal health professionals from another premier veterinary research university in the region, DUVASU, Mathura, and the Uttar Pradesh state wildlife department, providing opportunities to their staff to strengthen their skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection. In addition, PREDICT will hold stakeholder meetings with federal officials from human and animal health sectors to increase awareness of the technical program in UP and the global PREDICT program.									
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.	If requested, multisectoral trainings shall be imparted by PREDICT through its partners on various aspects of novel zoonotic infections including laboratory analytics, data analysis, spatial mapping and modelling for zoonotic infectious diseases.									
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin.	PREDICT team, skills, infrastructure and expertise can be made available to national and local authorities if needed. The PREDICT team shall also be available to work with the national teams to complement their efforts in diagnosing and thus helping in controlling the outbreak of zoonotic disease.									
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu									
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Indonesia**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Embassy estimate - no JEE)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	4	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	4	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	3	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**								
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**							
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens such as Ebola and MERS-COV in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	• Surveillance activities in the Provinces of North Sulawesi + Gorontalo will be conducted by the PRC-IPB and EIMB teams in close coordination with universities and veterinary and public health professionals (Provincial and District Veterinary Officers, District Medical Officers, and government health centre staff), while in the Provinces of SE Sulawesi and West Sulawesi surveillance will be conducted by the PRC-IPB team in close coordination with veterinary health professionals (Provincial and District Veterinary Officers) • Wildlife sampling activities are conducted in each quarter and in each season at all sites, and in tandem with data collection on enabling behavioral study for zoonotic disease risk and concurrently with sampling of people in at-risk communities (North Sulawesi). • Syndromic surveillance activities at target health centers (Kawangkoan and Noongan in North Sulawesi) will take place throughout the calendar year.							
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.							
7	PREDICT provides trainings to animal health professionals directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT Indonesia's implementing partners are the Primate Research Center at Bogor Agricultural University (PRC-IPB) in Bogor, West Java, and the Eijkman Institute for Molecukar Biology (EIMB) in Jakarta. Through PRC-IPB and EIMB, PREDICT provides multiple opportunities for student and personnel training, in-depth projects in the field and lab, and internships on all aspects of zoonotic disease surveillance, detection, prevention, response, and control. Specific trainings will be provided to strengthen surveillance capacity for veterinarians within the Ministry of Environment and Forestry.							

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8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	4	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	4	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	4	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	4	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	4	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively training surveillance teams and collecting data and information from areas of the country identified as high risk interfaces for zoonotic disease threats. Through our activities we will improve knowledge and information on zoonoses and emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.	Through the IDEEAL project, PREDICT is working with the INDOHUN team and One Health Workforce to enhance capabilities for infectious disease management through technical trainings in risk analytics (e.g., economic and spatial analyses targeting health and ecosystem services costs associated with land use change).							
9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with coordinating ministries for human development and cultural affairs and other relevant national partners to enable improved awareness and communication of potential zoonotic disease threats and opportunities for prevention and control.	Active behavioral risk investigations in North Sulawesi and Gorontalo are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread.							
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems.	PREDICT-Indonesia's public health team conducts community sensitization meetings and engages in regular communications with district hospitals at Kawangkoan and Noongan in North Sulawesi; we are working on improving methods to track impact of these activities.							
11	PREDICT will work with coordinating ministries for human development and cultural affairs to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; mechanisms in place for reporting zoonotic disease surveillance findings contribute to more regular information exchanges between animal and human sectors								
12	PREDICT has established data sharing mechanisms with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partners PRC-IPB and EIMB, our One Health network in Indonesia engages all ministries, and universities such as Indonesian One Health University Network (INDOHUN), and other EPT-2 partners like P&R, FAO, WHO, etc.							

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13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	4	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	4	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	5	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				

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13	PREDICT strengthens national laboratory systems by enabling disuse detection through a One Health laboratory network based at partner labs PRC-IPB and EIMB. Both labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at PRC-IPB and EIMB are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. Both labs are now actively testing animal and human samples and serve as key training centers for students and professionals, including government staff from the national lab system. Eight Animal Disease Investigation Centers (DIC) under the MoA of Indonesia had sent their lab staff to PRC-IPB to be trained in the implementation of PREDICT Lab Protocols in livestock and poultry samples.							
14	Labs in Indonesia, including DICs, will be able to detect emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network	PRC-IPB has been serving as lab diagnostic for wildlife pathogens detection (especially from nonhuman primates), while EIMB for human pathogens detection. Both PRC-IPB and EIMB labs are considered referral nodes that strengthen detection and surveillance capabilities across both sectors.							
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.	PREDICT supports efforts to improve interoperability with surveillance databases specific to Indonesia, i.e. iSIKHNAS.							
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels.							
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners, including the national lab system (DICs, NIH-RD, etc.) contributing to improvements in information sharing and linking of human and animal health sectors. Data sharing will be distributed also to other relevant national authorities and ministries, such as coordinating ministry for human development and cultural affairs, the Indonesian Institute of Science, Ministry of Environment and Forestry, Ministry of Research, Technology, and Hugher Education, etc.							

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18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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18	PREDICT shares protocols for laboratory detection of emerging infectious viruses with national veterinary and public health laboratories.	PREDICT continues protocol sharing and information exchange to support viral family-level zoonotic disease diagnostics at eight animal Disease Investigation Centers (DIC) under the MoA of Indonesia.							
19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response.	The implementing partners for PREDICT in Indonesia are the PRC-IPB and EIMB. PREDICT is embedded within PRC-IPB and EIMB and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.							
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics.	In coordination with FAO and Coordination Ministry for Human Development and Cultural Affairs (Kemenko PMK), PREDICT provides subject matter experts for training during zoonotic disease risk mapping workshop.							
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID). Upon request, PREDICT is equipped to provide critical support for outbreaks of unknown origin by leveraging experienced project field and lab investigation and detection teams that can work alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness.							
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu							
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Kenya**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Feb 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q 1**	**FY19Q 2**	**FY19Q 3**	**FY19Q 4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	3	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	4	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**						
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**							
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build capacity to test for both priority zoonoses and emerging and re-emerging pathogens such as Rabies, Brucellosis, Anthrax and Rift Valley Fever Virus (RVF) (a weakness identified in the JEE) in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	• Surveillance activities in Laikipia County will be implemented by the Institute of Primate Research and Kenya Medical Research Institute teams in close coordination with Kenya Wildlife Service (KWS), County veterinary and public health professionals (County Veterinary Officers, County Medical Officers, and government health Centre staff) • Animal sampling activities are conducted twice a year during the wet and dry seasons at each site. This is done in tandem with data collection on enabling behaviors for zoonotic disease risk and concurrently with sampling of people in at-risk communities in Laikipia North. • Syndromic surveillance activities at target health centers (Cottage Hospital and Nanyuki Teaching and Referral Hospital, Laikipia North) will take place throughout the calendar year.						
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.						
7	PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (county veterinary officers, wildlife service, lab technicians in animal health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	The PREDICT/Kenya primary animal health workforce implementing partner is the Institute of Primate Research (IPR), the only primate research institute in the country and in the region. Through IPR, PREDICT provides multiple opportunities for student training, in-depth projects in the field and lab, and internships (including University of Nairobi and Kenyatta University) on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.						

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8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information from areas of the country identified as hotspots for fevers of unknown origin and zoonotic disease emergence. Through our activities we will improve knowledge and information on emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.							
9	PREDICT has and continues to train One Health professionals to help identify community/occupational risk factors associated with zoonotic disease transmission risk. Findings will be communicated with relevant national partners, including ZDU, to enable improved awareness and communication of potential disease threats and opportunities for prevention and control.	Active behavioral risk investigations in Kenya and across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.						
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities, leading to improved two way information flows between formal and informal surveillance systems.	PREDICT plans to conduct community sensitization meetings and engages in regular communications with county and community leaders down; we are working on improving methods to track impact of these activities.						
11	PREDICT works with established channels (IPR and others engaged in the operationalization of the One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the means for more regular information exchange between animal and human sectors							
12	PREDICT has established a data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors.	Through our implementing partners IPR and KEMRI, the One Health network in Kenya engages Ministry of Agriculture and Livestock and the Ministry of Health, and universities such as University of Nairobi School of Veterinary Medicine and School of Public Health and other universities in the region. Our team actively participates in the One Health Coordinating Unit under the umbrella of Zoonotic Disease Unit (ZDU) and contributed to the development of the One Health Strategic Plan. We also maintain active linkages with other partners working on One Health, such as International Livestock Research Institute (ILRI), Mpala Research Centre and OHCEA at the University of Nairobi.						

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13	Biosafety/Biosecurity	P.6.2 Biosafety and biosecurity training and practices	3	Provide training in methods of biosafety and biosecurity practices to individuals working in laboratory and field-based settings to mitigate risks related to pathogens.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
15	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				

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13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs at the Institute of Primate Research and KEMRI. The two partner labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at the Institute of Primate Research and KEMRI are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, waste management, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases and emerging viral threats. IPR is actively testing animals and KEMRI will be testing human samples; both will serve as key training centers for students and professionals, including government staff from the national lab system.						
14	PREDICT has and continues to strengthen national laboratory systems (KEMRI & CVL) through training in laboratory diagnosis by enabling disease detection through a One Health Laboratory Network based at partner labs Kenya Medical Research Laboratory and Central Veterinary Laboratories. Both labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at Institute of Primate Research (IPR) and Kenya Medical Research Institute (KEMRI) are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases and emerging viral threats. In addition to zoonotic disease detection capability, IPR and KEMRI serve as key training centers (including "training of trainers") for students and professionals, including government staff from the national lab system (CVL).						
15	IPR and KEMRI labs will be able to detect priority zoonotic diseases and emerging viral threats. Findings from the two labs will be shared across sectors and will provide opportunities for staff from national lab systems (CVL) to communicate as a linked network.	KEMRI provides referral services to the national lab system at the Ministry of Health while CVL provides for Ministry of Agriculture and livestock and contributes data for surveillance reporting; both KEMRI and CVL labs are considered referral nodes that strengthen detection and surveillance capabilities across the two ministries.						
16	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners at the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.							

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17	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
18	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
21	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				

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17	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.						
18	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners, including the national lab system (CVL, KEMRI, etc.) contributing to improvements in information sharing and linking of human and animal health sectors (to include partners KWS, ZDU, DVS) .						
19	PREDICT is working with the University of Nairobi/OHCEA to develop a curriculum on One Health and zoonotic diseases to be offered to veterinary and public health students and as part of continuous professional development (CPD) to those already working or practicing (in-service). The course is to include a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response.							
20	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	The lead implementing partner for PREDICT in Kenya is the Institute of Primate Research (IPR). The project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.						
21	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.							

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22	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
23	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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22	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to assist in outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, PREDICT partner labs are able to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT was on high alert early this year to support Kenya's national response team to an Avian Influenza Outbreak in neighboring Uganda. PREDICT related protocols on safe animal handling and sampling, avian handling and sampling, and biosafety/PPE to the Directorate of Veterinary Services team that conducted surveillance. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID).						
23		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu						
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Liberia**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Sept 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	2	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**							
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**								
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens such as Ebola in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats, especially as it relates to Ebola virus disease and filovirus emergence and spillover.	• Surveillance activities in Lofa, Grand Cape Mount, Bong Nimba, and Montserrado Counties have been implemented in coordination with Forest Development Authority rangers and county health team officers • Wildlife sampling activities are conducted in each quarter and in each season at all sites. • In concert with sampling activities, PREDICT plans to collect in-depth, standardized, quantitative data using a targeted questionnaire (where feasible) on human activities and behaviors that may enable zoonotic disease transmission and spread among at-risk populations.							
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, specifically Ebola, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats, specifically Ebola in Liberia. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas. Behavioral risk data will be collected from people at surveillance sites.							
7	PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (Forestry Development Authority (FDA) personnel, Ministry of Agriculture (MOA) field officers, laboratory of personnel at the National Public Health Institute of Liberia (NPHIL) laboratory facility) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT Liberia's primary animal health workforce implementing partner is the Society for Conservation of Nature of Liberia (SCNL), the country's oldest and most well respected conservation organization. Through SCNL, PREDICT provides multiple opportunities for training, in-depth projects in the field and lab, and job opportunities on all aspects of zoonotic disease surveillance, detection, prevention, response, and control. FDA officers have been trained and are also engaged in animal surveillance activities with the PREDICT team.							

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8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses, especially Ebola in Liberia, by training surveillance teams and collecting data and information on potential Ebola host species around the country. Through our activities we will improve knowledge and information on Ebola and other emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.								
9	As budget allows, PREDICT will identify behaviors associated with zoonotic disease transmission risk , in particular Ebola, and will communicate our findings with the One Health Technical Working Group (OHTWG) and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control	Active behavioral risk investigations across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Specific to the Ebola Host Project in Liberia, Guinea, and Sierra Leone, PREDICT is identifying Ebolavirus risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.							
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems. For Ebola Host Project countries such as Liberia, PREDICT targets mitigation and intervention strategies specific to Ebola and other Viral Hemorrhagic Fevers.	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.							
11	PREDICT works with established channels, (OHTWG and others engaged in the operationalization of the One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the topics the means for more regular information exchanges between animal and human sectors.	PREDICT is engaged with P&R and supports One Health platforms by attending GoL meetings, sharing data and participating in discussions about prevention and response to emerging zoonoses.							
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partner, SCNL and our contacts at the various government Ministries and other public health and conservation NGOs, our team actively participates in the OHTWG and has contributed to the development of the One Health Strategic Plan.							

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13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	2	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	2	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				

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13	PREDICT aims to strengthen national laboratory systems by enabling disease detection through training on PREDICT protocols within NPHIL, and in the future through other labs in the national laboratory network. The NPHIL laboratory houses the leading research and diagnostic labs in the country. PREDICT will work closely with other international institutions to provide training and build capacity to NPHIL staff in biosafety, lab safety and methods for detecting Ebola and other emerging threats.	PREDICT/Liberia aims to train and equip the NPHIL staff, in collaboration with partners, in the full range of activities required for safely detecting priority zoonotic viruses such as Ebola, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. The goal will be to have capacity to safely detect Ebola along with other priority zoonotic diseases.							
14	Labs in Liberia will be able to detect Ebola and will learn skills equipping them for detection of priority zoonotic diseases and other emerging threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network.	NPHIL houses the primary reference and research laboratories in Liberia so is integral to the every aspect of disease detection, sample storage and information sharing within the Liberia's public health sector.							
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.	In Liberia, PREDICT is only conducting disease surveillance in wildlife, however methods for data collection, management and dissemination for priority pathogens in wildlife and for human behavioral risk data are standardized and SOPs are shared with government partners.							
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministries to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.							
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, especially the Ebola Host Project, and from the project as a whole, is routinely shared with government partners, contributing to improvements in information sharing and linking of human and animal health sectors.							

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18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	1	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	1	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	1	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. In addition, we offer a short course certificate program in One Health for current and future professionals.								
19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people, including Ebola. Our partners are training young professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for students, interns, and career professionals.	SCNL, the lead implementing partner for PREDICT, is the primary training ground for animal health professionals in-country. As the leading conservation organization in Liberia, SCNL has a very close working relationship with the FDA on a number of important national level projects, including PREDICT. As a result, PREDICT provides opportunities for students, interns, FDA staff and early career professionals, students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.							
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.	PREDICT aims to conduct laboratory training for molecular assay use with NPHIL.							
21		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu							
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Senegal**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Dec 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q 1**	**FY19Q 2**	**FY19Q 3**	**FY19Q 4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				
7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	3	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				

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3	**Projected Capacities**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**								
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**									
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses (such as Avian Influenza) and emerging and re-emerging pathogens such as Ebola and MERS-COV in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	Surveillance activities will continue in the Sindia Region and will be implemented by the PREDICT/Senegal partners the Interstate School of Veterinary Science and Medicine of Dakar (EISMV), the Senegalese Institute of Agricultural Research (ISRA), and the Cheikh Anta Diop University (UCAD) in close coordination with district level veterinary and public health professionals (District Veterinary and Parks Officers, District Medical Officers, and government health centre staff). Animal sampling activities are conducted in each quarter and in each season at all sites in tandem with behavioral data collection for zoonotic disease risk and concurrently with sampling of people in at-risk communities. Syndromic surveillance activities at target Health Centers (Sindia Health Center) will take place throughout the calendar year.								
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.								
7	PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (District Veterinary Officers, lab technicians in animal health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT/Senegal's primary animal health workforce implementing partner is the Interstate School of Veterinary Science and Medicine of Dakar (EISMV), the only veterinary school in the country and home of OHCEA and One Health Workforce. Through EISMV, PREDICT provides multiple opportunities for student training, in-depth projects in the field and lab (through the PREDICT partnership with ISRA), and internships on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.								

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8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				

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8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information from areas of the country identified as hotspots for emerging threats. Through our activities, we will improve knowledge and information on emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.	PREDICT will continue to foster discussions and collaborations on multi-sectoral zoonosis detection and response, in coordination with the national Emergency Health Operations Center (COUS) and provide technical input when requested.								
9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with the Ministry of Health and the Emergency Health Operations Center (COUS) and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control.	Active behavioral risk investigations in Senegal and across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.								
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.								
11	PREDICT works with established channels (One Health Workforce, COUS, and others engaged in the operationalization of the One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the topics and the means for more regular information exchanges between animal and human sectors.									
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partners EISMV, ISRA and UCAD, our One Health network in Tanzania engages all ministries, and government partners such as the Ministry of Agriculture, Ministry of Livestock, Ministry of Environment, Ministry of Health, and the Department of National Parks. Our team actively participates in the National GHSA Task Force as well as the COUS and serves as a resource for the development and operationalization of Senegal's One Health Strategic Plan. We also maintain active linkages to One Health Workforce.								

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13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				

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13	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs at ISRA and UCAD. Both labs maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at ISRA and UCAD are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases (Rift Valley Fever, and zoonotic influenza viruses) and emerging viral threats. Both labs are now actively testing animal and human samples and serve as key training centers for students and professionals, including government staff from the national lab system.								
14	Labs in Senegal will be able to detect priority and emerging viral threats. Findings from PREDICT's collaborating labs will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network	ISRA is part of the national lab system and contributes data for surveillance reporting; UCAD is considered a referral node that strengthens detection and surveillance capabilities across both sectors.								
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.	PREDICT/Senegal will continue to provide quarterly updates of disease surveillance activities to all ministry partners to assist in data dissemination from a One Health Perspective. Included in these reports will be links to HealthMap and other partner communications tools to enhance awareness of zoonotic disease surveillance activities in Senegal and throughout West Africa.								
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.								
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners (DPN, COUS, etc.) contributing to improvements in information sharing and linking of human and animal health sectors.								

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18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				
19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	3	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. In addition, we offer a short course certificate program in One Health for current and future professionals.									
19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	The lead implementing partner for PREDICT wildlife sampling in Senegal is EISMV, the primary training ground for animal health professionals in-country. PREDICT is embedded within EISMV, ISRA and UCAD and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal and human health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.								
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.									
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected viral hemorrhagic fever outbreaks later confirmed as Ebola in Uganda and the Democratic Republic of Congo. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID). The PREDICT Senegal team remains in contact with the Emergency Health Operations Center under the Ministry of Health in Senegal.								
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu								
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Sierra Leone**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Nov 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	1	Improve surveillance systems for priority zoonotic diseases and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	1	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				

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3	**Projected Capacities**								
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**							
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens, such as Ebola, in vulnerable and high-risk areas. Shared animal surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats especially as it relates to Ebola virus disease and filovirus emergence and spillover.	• Surveillance activities will be expanded to six districts (Bombali, Koinadigu, Kono, Kambia, Western Areas, and Pujehun) and will be implemented by the University of Makeni (UNIMAK) and University of California, Davis (UCDAVIS) teams in close coordination with National level (Chief Medical Officer, Deputy Chief Medical Officer II, Director of Livestock and Wildlife Services MAFFS), and at the District level veterinary and public health professionals (District Veterinary Officers, District Medical Officers). • Animal sampling activities at a given location are conducted twice each quarter and during both the wet and dry seasons at all sites. In concert with sampling activities, PREDICT plans to collect in-depth, standardized, quantitative data using a targeted questionnaire (where feasible), on human activities and behaviors that may enable zoonotic disease transmission and spread among at-risk populations. In addition, PREDICT is working with strategic GHSA partners to develop a zoonotic disease risk communication and outreach strategy focused on interventions for reducing the potential for viral transmission between bats and people.							
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.							

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7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	1	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				
8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				

	I	J	K	L	M	N	O	P	Q
7	PREDICT provides critical in-service training opportunities through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (District Veterinary/Wildlife and Medical surveillance officers, Veterinary Laboratories (TEKO) including lab technicians in animal health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT/Sierra Leone's primary animal health workforce implementing partner is the University of Makeni (UNIMAK) and the University of California, Davis. Through UNIMAK, PREDICT provides multiple opportunities for student training, in-depth projects related to field and laboratory testing in all aspects of zoonotic disease surveillance, detection, prevention, response, and control. The PREDICT team will continue to include and encourage partnerships and participants from the national level (MOHS and MAFFS) and district levels in team field sampling activities and for continued laboratory trainings at our UNIMAK facility. As outlined in the JEE as a deficiency, PREDICT will establish communications and foster cross-training activities with the N'Jala University where feasible to encourage broader workforce development.							
8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses, in particular Ebola, by training surveillance teams and collecting data and information from areas of the country identified as hotspots for zoonotic disease emergence. Through our activities we will improve knowledge and information on emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.	As outlined in the JEE, PREDICT will continue to foster discussions and collaborations on multi-sectoral zoonosis detection and response, in coordination with the national Public Health Emergency Management Center (PHMEC) and provide technical input when requested.							
9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings to MOHS and MAFFS partners and in coordination with the PHEMC and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control	Active behavioral risk investigations in Sierra Leone and across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying Ebolavirus risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.							
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems.	PREDICT/Sierra Leone conducts community sensitization meetings routinely and in every sampling site where we work. We will continue to be actively engaged in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.							

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11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	1	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				
13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	1	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				

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11	PREDICT works with established channels (National One Health Platform, and district level One-Health platforms and others) engaged in the operationalization of the One Health Strategic Plan. These platforms serve to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control. In coordination with district-level leaders PREDICT assists in facilitating more regular information exchanges between the animal and human sectors to improve policies and implementation plans. Based on research to date, PREDICT is also developing content for a safe bat-human interaction intervention.	PREDICT has facilitated initial district level One-Health platform meetings in Bombali, Koinadugu, Kono, and Western Areas. PREDICT/Sierra Leone and will facilitate initial meetings of district One-Health platforms to promote mechanisms for responding to zoonotic health threats (in coordination with other EPT partners such as P&R, WHO, and FAO) in Kambia and Pujehun districts. PREDICT/Sierra Leone team members will continue to provide technical assistance to the recently created National One Health platform as needed and requested by the GoSL.							
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	PREDICT has facilitated initial district level One-Health platform meetings in Bombali, Koinadugu, Kono, and Western Areas. PREDICT/Sierra Leone in response to deficiencies outlined in P.4.3 will facilitate initial meetings of district One-Health platforms to promote mechanisms for responding to zoonotic health threats (in coordination with other EPT partners such as P&R, WHO, and FAO) in Kambia and Pujehun districts. PREDICT/Sierra Leone team members will attend national level PHEMC meetings to facilitate and share technical information as requested by ministry partners.							
13	Due to the recent investments in Sierra Leone following the Ebola virus disease outbreak in 2014-2015, the SL JEE identified the human laboratory sector as a "4", and the animals laboratory sectors as a "1". PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory based at the University of Makeni (UNIMAK). This laboratory maintains strong ties to the national system (MOHS-CPHRL and MAFFS-TEKO) and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT/Sierra Leone laboratory at UNIMAK is comprised of trained staff and equipped in the full range of activities required for safely detecting zoonotic viruses (especially filoviruses the viral family that includes Ebola), including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases (such as Ebola and Marburg viruses) and other emerging viral threats. The UNIMAK laboratory is now actively testing animal (livestock) specimens and serves as a key training center for students and professionals, including government staff from the national lab system (MOHS and MAFFS), transfer of PREDICT testing protocols to these partner laboratories is possible upon request.							

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14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	1	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	2	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				

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14	The PREDICT laboratory will assist national level labs to gain the ability to detect priority and emerging viral threats through training and transfer of technology and protocols where appropriate. Findings from PREDICT's collaborating lab will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network	The UNIMAK laboratory in collaboration with the University of California, Davis and the University of Cambridge strives to facilitate training and workforce development of SL laboratorians by providing trainings and technical advice when requested and feasible.							
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.	PREDICT/Sierra Leone will continue to provide quarterly updates of disease surveillance activities to all ministry partners to assist in data dissemination from a One Health Perspective. Included in these reports will be links to HealthMap and other partner communications tools to enhance awareness of zoonotic disease surveillance activities in Sierra Leone and throughout West Africa.							
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.							
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners, including when approved by the MOHS and MAFFS points-of-contact with the national lab system (such as CPHRL and TEKO) contributing to improvements in information sharing and linking of human and animal health sectors.							
18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response.								

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19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	2	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	The lead implementing partner for PREDICT in Sierra Leone is the University of Makeni (UNIMAK). PREDICT is embedded within UNIMAK and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals from ministry partners at both the national and district levels (MOHS and MAFFS) by providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.							
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.								
21		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu							
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Uganda**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (June 2017)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	2	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				

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3	**Projected Capacities**										
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**									
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens such as Ebola and MERS-COV in wildlife in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	Surveillance activities in the Bwindi/Mgahinga (Kabala, Kisoro and Kanungu Districts) and commencing in Queen Elizabeth (Kasese, Rubirizi, Rukingiri, Kanungu and Kamwenge Districts) Conservation areas will be implemented by the Mountain Gorilla Veterinary Project (MGVP, Inc.) teams in close coordination with the Uganda Wildlife Authority and district-level veterinary and public health professionals. Animal (especially wildlife) sampling activities will be conducted in each quarter and in each season at these sites in tandem with data collection on enabling behaviors for zoonotic disease risk and will be done concurrently with sampling of people in at-risk communities (Bwindi/Mgahinga area). Syndromic surveillance activities at target health centres (Bwindi Community and Kagando Hospitals) will take place throughout the calendar year.									
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats, including at district levels (identified as a weakness in the JEE). We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas.									

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7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	3	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				
8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				
10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				

	I	J	K	L	M	N	O	P	Q	R	S
7	PREDICT provides critical in-service training opportunities through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (government veterinarians, extension officers, lab technicians in animal health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT Uganda's primary animal health workforce implementing partner is Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (COVAB), the only veterinary school in the country. Through COVAB, PREDICT provides opportunities for student training, in-depth projects in the field and lab, and internships on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.									
8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information at the district level. Through our activities we will improve knowledge and information on emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors to support collaboration, the lack of which currently was identified as a weakness by the JEE.										
9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control.	Active behavioral risk investigations in Uganda and across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage.									
10	PREDICT works with local communities to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two-way information flows between formal and informal surveillance systems.	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household level; we are working on improving methods to track impact of these activities.									

	A	B	C	D	E	F	G	H
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	2	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				
13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				
14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	4	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				

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11	PREDICT works with established channels (National Task Force on Epidemic Preparedness and Response and the National One Health Platform One Health Technical Working Group) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide regular information on wildlife health threats to animal and human sectors.										
12	Systematizing the exchange of zoonotic data between the human and animal health sectors was identified as a weakness in the JEE. PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partners MGVP, Inc., our One Health network in Uganda engages ministries and universities, such as the Uganda Wildlife Authority, Uganda Virus Research Institute, National Animal Disease Diagnostics and Epidemiology Center, and Makerere University Walter Reed Project. Our team participates in the National Task Force on Epidemic Preparedness and Response and the National One Health Platform One Health Technical Working Group.									
13	PREDICT strengthens Uganda's national laboratory systems by enabling viral disease detection at our partner laboratory, Uganda Virus Research Institute (UVRI), one of the 3 primary national reference laboratories in Uganda. This lab maintain strong ties to the national system and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT shall provide staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.	PREDICT partner labs at Uganda Virus Research Institute and Makerere University Walter Reed Project are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases (zoonotic influenza and hemorrhagic fevers such as Ebola, Marburg, Rift Valley Fever) and emerging viral threats. UVRI is now actively testing animal and human samples for PREDICT.									
14	Findings from PREDICT's collaborating lab UVRI will be shared across sectors and will provide opportunities for staff from national lab systems to communicate as a linked network	UVRI provides services to the national lab system and contributes data for surveillance reporting.									

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15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				

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15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance, a weakness identified by the JEE. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.										
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems, along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.									
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners, contributing to improvements in information sharing and linking of human and animal health sectors.									
18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response.	Trainings (in-service field and lab sessions and workshops) occur throughout the year.									

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19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	4	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables.				
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	I	J	K	L	M	N	O	P	Q	R	S
19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of nonhuman primates and small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our primary academic partner, Makerere University College of Veterinary Medicine, Animal Resources and Biosecurity (COVAB) actively promotes and engages students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	The lead implementing partner for PREDICT in Uganda is the Mountain Gorilla Veterinary Project (MGVP, Inc.), which occupies office and laboratory space at Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (COVAB), which is the primary training ground for animal health professionals in-country. PREDICT provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs.									
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.										
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT has provided critical support for outbreaks of unknown origin and for several suspected viral hemorrhagic fever outbreaks later confirmed as Ebola in Uganda. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID).									
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu									
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1	**Project Name:**	**PREDICT**						
2	**Country:**	**Viet Nam**						
3					**Expected Quarter completion**			
4	**Action Package (choose from drop-down)**	**Indicator**	**JEE Baseline or self-assessment (Nov 2016)**	**Planned activities to reach next level or key benchmark milestone that can be accomplished during the period**	**FY19Q1**	**FY19Q2**	**FY19Q3**	**FY19Q4**
5	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	4	Improve surveillance systems for priority zoonotic disease and other emerging threats by conducting targeted sampling for zoonotic viruses with pandemic potential at specific high-risk interfaces.				
6	Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	4	Strengthen zoonotic disease surveillance systems by characterizing risk and collecting data at regular intervals on epidemiological and ecological factors identified as drivers of zoonotic disease transmission.				

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3	**Projected Capacities**						
4	**Indicate if completed activities can make the case for achievement of next capacity level. If not or not sure, list 1-2 substantive benchmarks or milestones the activities will achieve on the road to the next capacity level.**	**Additional context related to GHSA Action Packages (eg. Types of labs, planned pathogen testing, universities) If applicable, indicate partnerships with other implementers/donors/governments needed to achieve targets**					
5	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens such as SARS, zoonotic influenza, or MERS-COV in vulnerable and high-risk areas. Shared animal and human surveillance data and findings will help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. We will intensify our community engagement and work to identify methods to formally measure local awareness of zoonotic disease threats.	• Surveillance activities in Viet Nam (Dong Nai, Hanoi, and Bac Giang Provinces) will be implemented by the National Institute of Hygiene and Epidemiology (NIHE) in close coordination with veterinary, forest protection, and public health professionals [sub-Department of Animal Health (DAH) Officers, District Veterinary Officers, Forest Protection Officers, Provincial Preventive Medicine Center Officers, and district health center staff]. Livestock sample collection and testing at these sites will be supported by FAO. • Animal sampling activities are conducted in each season (rainy and dry) at all sites in tandem with data collection on enabling behaviors for zoonotic disease risk and concurrently with sampling of people in at-risk communities (wildlife farm workers, wildlife hunters/traders/vendors, bat guano collectors). • Syndromic surveillance activities at target health centers (Dong Nai, and Hanoi and Bac Giang Provinces as budget allows) will take place throughout the calendar year. • Surveillance activities focused on influenza and Other Potential Pandemic Pathogens (LISN) will take place in Dong Thap and Quang Ninh Province in coordination and with support from FAO and WHO. In Dong Thap Province Pasteur Institute Ho Chi Minh (PI-HCM) will implement SARI surveillance and in Quang Ninh Province NIHE will implement SARI surveillance. SARI surveillance will be conducted in close coordination with FAO/DAH influenza surveillance in livestock (poultry and pigs). PREDICT/Viet Nam wildlife surveillance support will be conducted in close coordination with veterinary and forest protection officers (sub-DAH Officers, District Veterinary Officers, and Forest Protection Officers).					
6	By identifying and characterizing high-risk interfaces, epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk, PREDICT data will help identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems.	PREDICT data and analyses consistently provide utility for improved decision making and management of zoonotic diseases and emerging threats. We inform and refine surveillance strategies to efficiently allocate project resources to the most vulnerable and at risk areas. PREDICT data on viruses detected in human, wildlife, and livestock populations is shared with the DAH of the Ministry of Agriculture and Rural Development (MARD), NIHE of the Ministry of Health (MoH), and the CITES Management Authority of MARD.					

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7	Zoonotic Disease	P.4.2 Veterinary or Animal Health Workforce	4	Strengthen the veterinary and animal health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal health system from the district to national levels.				
8	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Establish evidence for actionable improvements to zoonotic disease prevention, detection, and response.				
9	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Identify and monitor enabling behaviors, attitudes, practices, and socio-cultural norms and conditions that facilitate animal-human contact and influence the transmission and spread of zoonotic diseases.				

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7	PREDICT provides critical in-service training opportunities through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We will continue to offer trainings to animal health professionals (sub-DAH Veterinary Officers, District Veterinary Officers, Forest Protection Officers, veterinary school faculty, lab technicians and virologists in animal health labs, and local community members) directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.	PREDICT/Viet Nam's primary animal health workforce implementing partner is the Viet Nam National University of Agriculture (VNUA) Veterinary Faculty, the premiere veterinary school in the country and active member of the Viet Nam One Health University Network (VOHUN) of EPT's One Health Workforce. PREDICT/Viet Nam also partners with the Hanoi School of Public Health (HSPH) that leads VOHUN. Through engagement with VNUA, HSPH, and VOHUN, PREDICT provides multiple opportunities for student training and practical experience in the field and lab on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.					
8	PREDICT is actively assessing and improving mechanisms for responding to infectious and potential zoonoses by training surveillance teams and collecting data and information from areas of the country identified as weaknesses in the national surveillance system for emerging threats and as potential hotspots for pandemic disease emergence given the intense contact between humans and wildlife and risk of spillover and sharing of pathogens. Additionally PREDICT/Viet Nam is enhancing the national surveillance system by expanding surveillance at hotspots for severe acute respiratory illness (SARI). Through our activities we will improve knowledge and information on emerging threats and communicate these findings with recommendations for prevention and control across both the animal and human health sectors.	PREDICT/Viet Nam will work with WHO to enhance SARI surveillance systems to identify and respond to potential zoonoses in the country at two key points along the animal value chain, the China-Viet Nam border province of Quang Ninh, and the Cambodia-Viet Nam border province of Dong Thap.					
9	PREDICT will identify behaviors associated with zoonotic disease transmission risk and communicate our findings with the One Health Partnership (OHP), Viet Nam's One Health Coordinating Unit, and other relevant national partners to enable improved awareness and communication of potential disease threats and opportunities for prevention and control.	Active behavioral risk investigations in Viet Nam and across Africa and Asia are providing insight and awareness of risky behaviors and practices at high-risk animal and human interfaces identified as threats for zoonotic disease transmission and spread. Through this work, PREDICT is identifying risk mitigation options that are both effective and scalable along with intervention strategies that are targeted to the local communities we engage. The wildlife farm interface, the wildlife trade animal value chain, and bat guano collection are the three major high-risk animal and human interfaces under investigation in Viet Nam.					

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10	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Identify mechanisms and potential targets for intervention to reduce the risk of zoonotic disease transmission and spread.				
11	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Promote policies and practices that reduce the risk zoonotic disease transmission and spread.				
12	Zoonotic Disease	P.4.3 Mechanisms for responding to zoonosis and potential zoonosis are established and functional	3	Improve cross-sectoral collaboration by promoting strong communication and data sharing opportunities and support collaborative platforms and partnerships for mitigation of priority zoonotic diseases and emerging viral threats.				
13	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Provide training and enable implementation of standardized testing of human and animal samples collected across interfaces, specimen types, host taxa, seasons, and regions.				

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10	PREDICT works with local communities and provincial-level stakeholders to understand the context and risks for zoonotic disease transmission and spread and helps identify feasible mitigation and intervention strategies that better inform and educate local communities leading to improved two way information flows between formal and informal surveillance systems.	PREDICT conducts community sensitization meetings and engages in regular communications with district and community leaders down to the household and farm level; we are working on improving methods to track impact of these activities.					
11	PREDICT works with established channels (OHP and others engaged in the operationalization of the national One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide the topics and the means for more regular information exchanges between animal and human sectors.						
12	PREDICT has established data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.	Through our implementing partners NIHE of MoH, DAH and CITES MA of MARD, and VNUA representing the veterinary medical research and academic community, we enhance cross-sectoral collaboration and communication directly as concurrent surveillance activities are planned and data is generated and shared across project partners. Our team actively participates in the One Health Partnership (OHP) coordinating unit and contributed to the development of the National One Health Strategic Plan. PREDICT/Viet Nam also engaged cross-sectorally and promotes cross-sector communication through the EPT network that includes WHO, FAO, UNDP, OHW, and P&R.					
13	PREDICT strengthens national laboratory systems by establishing capacity for disease detection, especially of priority zoonotic diseases and other emerging and re-emerging viral threats, directly in the main national animal health and public health laboratories in Viet Nam. Through in-service training opportunities and testing of PREDICT surveillance samples, staff from the national system enhance skills in biosafety, lab safety, lab flow and data management, and methods for detecting emerging threats.	PREDICT partner labs in Viet Nam include the National Institute for Hygiene and Epidemiology (NIHE) in Hanoi, the Pasteur Institute Ho Chi Minh in Ho Chi Minh City, the Department of Animal Health Regional Office No. 6 (RAHO6) lab in Ho Chi Minh City, and the National Key Laboratory of Veterinary Biotechnology, Faculty of Veterinary Medicine, at the Viet Nam National University of Agriculture (VNUA) in Hanoi. These labs are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques. As a result, these public health and animal health labs have capacity to safely detect priority zoonotic diseases (i.e. zoonotic influenza viruses and MERSCoV or Ebola if they should enter the country) and emerging viral threats. These labs are now actively testing animal and human samples and serve as key training centers for students and professionals, including government staff form other parts of the national lab system.					

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14	National Lab System	D.1.1 Laboratory testing for detection of priority diseases	3	Detect priority zoonotic diseases and other emerging threats from different hosts and locations and conduct longitudinal monitoring of potential pathogens to track changes in geographic and host distribution, as well as transmissibility.				
15	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Standardize animal and human data collection and management and enhance digital surveillance and outbreak intelligence for zoonotic diseases.				
16	Surveillance	D.2.2 Inter-operable, interconnected, electronic real-time reporting system	3	Synthesize data and provide a secure database to house aggregated human behavioral risk, biological surveillance, and outbreak information with novel analytic and visualization tools.				
17	Reporting / Information Systems	D.3.1 System for efficient reporting to WHO, FAO and OIE	3	Catalyze multisectoral information sharing by providing data on results, findings, and insights for policy use, response, and meeting IHR and OIE reporting obligations; distributing data for public release using a globally accessible public portal; and incorporating processed risk-characterization data coupled with clearly documented, cross-cutting forecasting of risk resulting from the characterization process.				
18	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Develop materials, conduct trainings, and track progress to inform and enable a workforce with the needed infrastructure and capacity to perform zoonotic disease surveillance-related activities.				

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14	PREDICT labs in Viet Nam include both public health (NIHE) and animal health (RAHO6) national reference laboratories. Through capacity built by PREDICT, labs in Viet Nam will be able to detect priority and emerging viral threats in humans and animals. Findings from PREDICT's collaborating labs will be shared across sectors to other parts of the national lab systems to enhance the practice of communication as a linked network.	PREDICT labs provide referral services to other parts of the national lab system and contribute data for surveillance reporting; both NIHE and RAHO6 labs are considered referral nodes that strengthen detection and surveillance capabilities across both sectors.					
15	PREDICT zoonotic disease surveillance is by design intended to facilitate early warning and situational awareness of biological events (priority diseases and emerging and newly detected threats). Our data platform integrates animal and human information and enables alerts of events of public or animal health significance. Through our partners the International Society for Infectious Diseases (ISID) and HealthMap, we combine field-based data with real-time digital disease detection capacity for enhanced early warning of disease threats. PREDICT data platforms capture information on animal and human threats, and we provide relevant alerts and information to the national system.						
16	PREDICT will explore options to better link and engage analytics, disease reports and alerts, and other relevant information with existing ministry systems; along with information flows between animal and human health labs as noted above.	PREDICT is investigating appropriate mechanisms and communication strategies for sharing information across all relevant stakeholder groups from the national ministry to lower district and local community levels. We will continue to explore best practices and options to deliver relevant alerts, data, and information on zoonotic disease findings, risks, and threats and will evaluate the level of effectivity through lessons learned, promoting improvements in risk communications relevant to the national system.					
17	PREDICT will directly provide opportunities for improved communications and linkages between public health, animal health, and other groups.	Data and information from zoonotic disease surveillance and labs, and from the project as a whole, is routinely shared with government partners, through and including the national lab system (NIHE, RAHO6, etc.) contributing to improvements in information sharing and linking of human and animal health sectors. Additional cross-sector data sharing and reporting to FAO and WHO will be facilitated by the LISN initiative.					
18	PREDICT has developed a comprehensive One Health training program including modules, quizzes, and potential for certificates covering all the core skills required by professionals engaging in zoonotic disease surveillance, detection, and response. In addition, we offer a short course certificate program in One Health for current and future professionals.						

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19	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen the health workforce by providing in-service training through field and lab-based zoonotic surveillance activities to staff from the national animal and human health systems from the district to national levels.				
20	Workforce Development	D.4.1 Human resources are available to implement IHR core capacity requirements	3	Strengthen risk characterization and management capacity though multisectoral partner training on laboratory analytics, data analysis, spatial mapping, and zoonotic disease modeling.				
21	Emergency Operations Centers	R.2.1 Capacity to Activate Emergency Operations	2	Remain in a constant state of preparedness to contribute technically and substantively to outbreak response.				
22	Other			Manage and coordinate project operations for successful completion of plans and deliverables				
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19	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.	One of the lead implementing partners for PREDICT in Viet Nam is the Viet Nam National University of Agriculture's Faculty of Veterinary Medicine, one of the primary training grounds for animal health professionals in-country. PREDICT works closely with VNUA faculty and the VNUA National Key Laboratory of Veterinary Biotechnology Faculty of Veterinary Medicine which is an important PREDICT partner laboratory. The engagement with VNUA provides ongoing opportunities for students, interns, and staff to engage in project activities with opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection.					
20	A critical component of lab and epidemiology training programs is data and risk analysis. PREDICT provides opportunities that advance lab analytics and in-depth zoonotic disease risk modeling and analytics that complement FELTP programs.						
21	PREDICT contributes critical One Health-oriented outbreak preparedness and response expertise, especially in outbreaks of unknown origin that adds value to existing Emergency Operations Centre capacity for effective activation in an emergency. Our trained wildlife and human health technicians are equipped to launch outbreak investigations, including behavioral risk investigations complimenting national response plans. In addition, our labs stand-by ready to support detection and diagnostics, especially for outbreaks of unknown origin where suspected diseases have been ruled out through testing.	PREDICT has provided critical support for outbreaks of unknown origin around the world, including for several suspected viral hemorrhagic fever outbreaks later confirmed as Ebola in Africa. In these events, PREDICT labs and investigation teams were called into action by national authorities and worked alongside response teams to add depth and value to outbreak investigations and contribute valuable insights to findings and future preparedness. Our teams remain in a state of preparedness to engage and when requested by national authorities provide support (when approved by USAID).					
22		All PREDICT teams manage and coordinate the project in collaboration with global, regional, and in-country EPT-2 and GHSA partners assuring compliance with federal and local laws and regulations, successful implementation of the project, and completion of all deliverables. For more information on our operations please contact predict@ucdavis.edu.					
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